

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



258  
823  
253

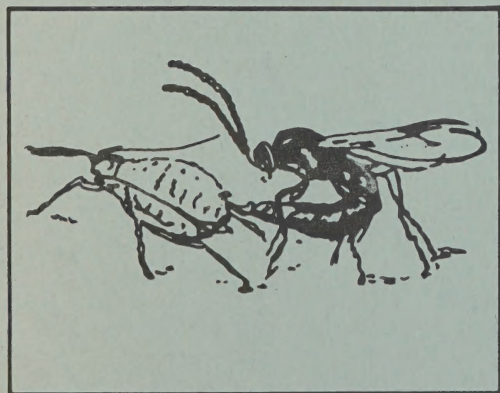
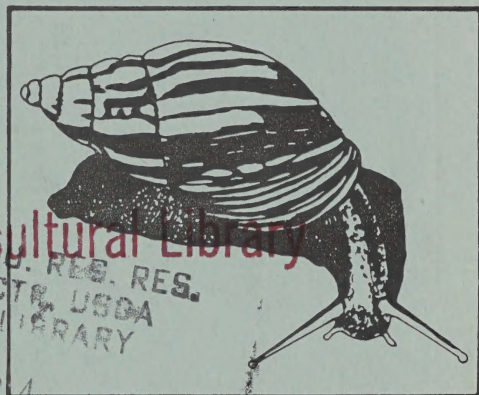
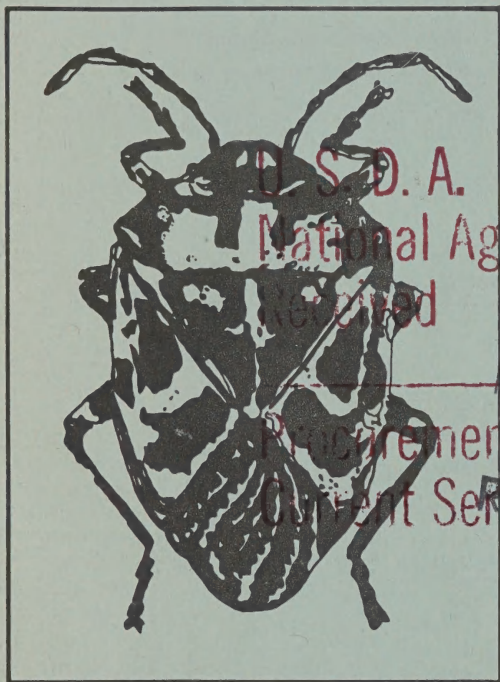
Animal and Plant  
Health Inspection  
Service

Plant Protection  
and Quarantine

# Cooperative Plant Pest Report

VOL. 4 INDEX

1979



U. S. D. A.  
National Agricultural Library  
Received

RES. RES.  
CTR. USDA  
LIBRARY

MAR 4 - 1981

Procurement Section  
Current Serial Records

This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

Data included in this publication are compiled from reports submitted by cooperating State, Federal and other agricultural and industrial specialists. Accuracy of the reports is not verified prior to publication.

*Cooperative Plant Pest Report* supersedes *Cooperative Economic Insect Report*, which was discontinued with Volume 25, Numbers 49-52, 1975.

*Correspondence should be directed to:*

**CPPR**

New Pest Detection and Survey Staff  
Plant Protection and Quarantine Programs  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
Federal Building #1  
Hyattsville, Maryland 20782

**We cannot make address changes  
unless we have your mailing code**



# COOPERATIVE PLANT PEST REPORT

Volume 4

Index

1979

## SPECIAL REPORTS

Cooperative survey entomologists 47-49.

Cooperative survey plant pathologists 50

Grasshopper status and outlook on field crops in the West - 1979 475-476

Hawaii pest report 9 33 40 55 66 74 82 92 104 115 157 182 209 240 289 313 344 392 453 498 679 718 762-76 788 804 825 847

Light trap collections 8 33 41 55 65 74 82 92 106 117 158 184 211 242 263 291 314 346-347 363 393 413-414 433 455 473 500 524-525 552 572 598 619 642 664-665 680 702 719 734 753 764 789 805 825 847

Losses: Estimated losses from rust in 1978 194-198

Map (quarantine): pink bollworm 712, witchweed 82

Pest detection in the United States 1978 15-25 after page 57 revised page 15

Pest interceptions of quarantine significance at ports of entry 12 36 42 57 68 76 85 94 107 118 159 185 212 243 264 292 315 348 364 394 415 434

456 474 501 526 553 573 599 620 666 681 703 735 756 765 790 829

Pests not known to occur in the United States or of limited distribution: Aulacophora abdominalis pumpkin beetle 13-14, Medythia suturalis a striped leaf beetle 95-96

Puccinia melanocephala, Sugarcane rust records for Louisiana collected in 1979 624

Rangeland grasshopper situation 410

State survey coordinators 43-46

Striga gesnerioides (Willd.) Vatke (Scrophulariaceae), first record of the species in Western Hemisphere 84

Summary of pest conditions in the U.S. - 1978. Beans and peas 215-217. Beneficial organisms and their enemies 316-318. Citrus 248-249. Cole crops 217-218. Contributors 326. Corn, sorghum, sugarcane 119-139. Cotton 186-189. Cucurbits 219. Deciduous fruits and nuts 244-248. Federal and State programs 318-325. Forage legumes 160-167. Forest and shade trees 269-272. Forest insect and disease highlights 265-268.

General vegetables 219. Households and structures 294. Introduction 119. Man and animals 293-294. Miscellaneous field crops 191-193. Ornamentals 265. Peanuts 174. Potatoes, tomatoes, peppers 213-215. Small fruits 249-250. Small grains 139-147. Soybeans 167-174. Sugar beets 191. Tobacco 189-190. Turf, pastures, rangeland 148.

Tabanids, New geographical distribution records for forty-four species and subspecies in West Virginia 220-224

Authors: Butler, L. 220-224. Hacker, J.D. 220-224. Musselman, L.J. 84. Pechuman, L.L. 220-224. Shuey, A.G. 84. White, R.E. 13-14, 95-96. Wunderlin, R.P. 84.

Under each letter of the alphabet, names are grouped according to their pest category. The pest categories are as follows: DISEASES; INSECTS, including other arthropods; SLUGS AND SNAILS; and WEEDS, including parasitic plants. Scientific names should be used to locate all page references except for those pests or groups of pests where scientific names were not reported. In such instances, page references will be found under common names. A combination of common and scientific names of a pest may not appear on the page referred, but one or the other will be present. Underlined page numbers represent references to "Summary of Pest Conditions in the United States - 1978." Light trap collections for a particular species are listed at the end of pagination for that species under this heading.

## DISEASES

Achromobacter eurydice European foul-  
brood 288  
Agrobacterium tumefaciens crown gall  
786  
Albugo occidentalis a white rust 219  
Alfalfa downy mildew Peronospora  
trifoliorum  
Alfalfa mosaic virus 563 689 744  
Alfalfa rust Uromyces striatus  
Aloe rust Uromyces aloes  
Alternaria sp. an alternaria leaf  
spot 696 771  
Alternaria early blight Alternaria  
solani  
Alternaria solani alternaria early  
blight 466 489 519  
American foulbrood Bacillus larvae  
American wheat striate mosaic virus  
512  
Anthraxnose leaf blight Colletot-  
richum graminicola  
Anthraxnose stalk rot Colletot-  
richum graminicola  
Aphanomyces euteiches pea root rot  
426 447 467 revised page 490 after  
page 553  
Apple blotch Phyllosticta solitaria  
Apple scab Venturia inaequalis  
Armillaria mellea shoestring root rot  
267-268  
Ascochyta sorghina rough spot 649 724  
Ascosphaera sp. a chalkbrood 317  
Ascosphaera apis 288 617  
Aster yellows mycoplasma 141

## INSECTS

Abgrallaspis sp. a diaspidid scale 68  
118 159  
Abgrallaspis cyanophylli 286 290  
Abgrallaspis howardi 93 238 241  
Acalymma vittata striped cucumber  
beetle 31 35 90 93 230 258 308 447  
661  
Acrobasis nuxvorella pecan nut case-  
bearer 237-238 241 247-248 286 340  
359 426 548 568 637  
Acrolepia assectella leek moth 415  
456 666  
Acrosternum hilare green stink bug  
173 247 248 514 658 673 693 714 748  
760 784  
Aculus fockeui plum rust mite 247  
Aculus schlechtendali apple rust mite  
247 548

Acutaspis decorosa a diaspidid scale  
526  
Acutaspis perseae 427 432  
Acylopus sp. a phalacrid beetle 844  
848  
Acyrtosiphon kondoi blue alfalfa  
aphid 19 61 67 112 154 157 165-166  
180 204 205 235 241 256 257 262 283  
290 305 306 356 362 424 745 759 763  
799 816 826 827 828 839 849  
Acyrtosiphon pisum pea aphid 4 30 53  
71 80 89 90 100 101 111 112 154 166  
180 204-205 209 217 235 236 257 283  
305 318 336 356 383 385 388 406 424  
447 463 467 486 514 538 564 609 630  
654 709 745 759 781 799 814 816 818  
828 838-839  
Adelges cooleyi Cooley spruce gall  
adelgid 360  
Adelges laricis 469 472  
Adelges piceae balsam woolly adelgid  
269  
Adelges tsugae 103 105  
Adelphocoris lineolatus alfalfa plant  
bug 336 404  
Aedes spp. 408 428 449 470 520 549  
698  
Aedes abserratus 449  
Aedes atropalpus 181 183  
Aedes canadensis 287  
Aedes cantator 677  
Aedes cinereus 294 388 408 428 449  
470 520 549 762  
Aedes sollicitans saltmarsh mosquito  
786  
Aedes sticticus 408 428 449  
Aedes stimulans 287 342 408 428 449  
470 520 549 698  
Aedes triseriatus 449  
Aedes trivittatus 449 520 549 698  
Aedes vexans vexans mosquito 294 342  
361 388 408 428 449 470 520 549 677  
698 762  
Aeoloplides turnbullii a grasshopper  
700  
Aeropedellus clavatus 471  
Aethus nigratus a cydnid bug revised  
page 15 after page 57  
Africaspis orchidarum a diaspidid  
scale 790  
Ageneotettix deorum a grasshopper  
240 261 312 321 322 390 391 410 411  
430 471 497 700 787 846  
Agrilus anxius bronze birch borer 269  
Agrilus cingulatus sweetpotato horn-  
worm 825



Agromyza frontella alfalfa blotch  
 leafminer 165 336 356 382 424 443  
 463 513 653  
Agrotis ipsilon black cutworm 99 131  
 177 188 189 202 227 236 253 254 275-  
 276 297 329-330 337 351 368-369 386  
 398 689 709. Light traps: 8 33 55 65  
 74 82 92 106 117 158 184 211 242 263  
 291 314 346347 363 393 413-414 433  
 455 473 500 524-525 552 572 598 619  
 432 664-665 680 702 719 734 753 764  
 789 805 825 847  
Agrotis orthogonia pale western cut-  
 worm 178 378 709  
Agrotis venerabilis a noctuid moth  
 709  
Alabama argillacea cotton leafworm  
 695  
Aleurocanthus husaini a whitefly 264  
 526  
Aleurocanthus woglumi citrus black-  
 fly 94 104 317 345 409 412 451 521  
 523 617 803 805  
Aleurodicus dispersus a whitefly 9  
 209 289 453 679 825 847  
Aleuroplatus sp. a whitefly 113  
Aleuroplatus semiplumosus 454  
Aleuroplatus vaccini 115  
Aleurothrixus floccosus woolly white-  
 fly 6 54 56 820 828  
Aleurotulus sp. a whitefly 9 10  
Alfalfa blotch leafminer Agromyza  
frontella  
Alfalfa caterpillar Colias eurytheme  
Alfalfa leafcutting bee Megachile  
rotundata  
Alfalfa looper Autographa californica  
Alfalfa plant bug Adelphocoris lineo-  
latus  
Alfalfa seed chalcid Bruchophagus  
rodii  
Alfalfa snout beetle Otiiorhynchus  
ligustici  
Alfalfa webworm Loxostege commixtalis  
Alfalfa weevil Hypera postica  
Alkali bee Nomia melanderi  
Allograpta obliqua a syrphid fly 289  
Alsophila pometaria fall cankerworm  
 238 244 266 270 310 387 427  
Altica foliacea a chrysomelid beetle  
 115 812 827  
Altica sylvia blueberry flea beetle  
 387  
Alypia octomaculata eightspotted  
 forester 249  
Amathes c-nigrum spotted cutworm 283

Amblyomma americanum lone star tick  
 103 239 287 290 520 523  
Amblyomma maculatum Gulf Coast tick  
 310  
Amblyseius fallacis a phytoseiid mite  
 237  
Amblytylus nasutus a mirid bug 848  
American dog tick Dermacentor vari-  
abilis  
American grasshopper Schistocerca  
americana  
Amitus hesperidum a platygasterid  
 wasp 317  
Ampelogypter sesostris grape cane  
 gallmaker 249  
Amphitornus coloradus a grasshopper  
 312 321 322 391 410 471 787  
Amyelois transitella navel orangeworm  
 32  
Anabrus simplex Mormon cricket 325  
 618  
Anacentrinus deplanatus a weevil 29  
 35 61 67  
Anaphes flavipes a mymarid wasp 316  
 342 361 389 408 412 428 432 450 454  
 520 523  
Anarsia lineatella peach twig borer  
 237 259 386 568  
Anasa tristis squash bug 285 661 676  
 850  
Anastatus semiflavus a eupelmid  
 wasp 81 83  
Anastrepha ludens Mexican fruit fly  
 292 497 553 681 765  
Ancognatha scarabaeioides a scarab  
 159 212 292  
Ancylolomia palpella a pyralid moth  
 212  
Anisota senatoria orangestriped oak-  
 worm 761  
Anopheles punctipennis a mosquito 762  
Anopheles quadrimaculatus 388  
Anthonomus eugenii pepper weevil 74  
 818 840  
Anthonomus grandis grandis boll  
 weevil 186-187 188 337 357 383-384  
 405 425 445 466 488 517 544-545 566  
 590 612 634 658 674 678 694 698-699  
 714 730 748-749 760 784 800 818 828  
 840  
Anthonomus grandis thurberiae thur-  
 beria weevil 187  
Anthonomus signatus strawberry  
 weevil 340



Anticarsia gemmatalis velvetbean  
 caterpillar 171 445 465 488 611 612  
 633 634 657 658 673 692 693 711-712  
 729 747-748 760  
Anuraphis maidiradicis corn root  
 aphid 461  
Aonidiella aurantii California red  
 scale 40  
Aonidiella comperei 806  
Aonidiella inornata a diaspidid  
 scale 19  
Aonidomytilus sp. a diaspidid scale  
 829  
Aonidomytilus hyperici 241  
Aonidomytilus solidaginis 93 618 820  
 827  
Apanteles liparidis a braconid wasp  
 317  
Apanteles marginiventris 283  
Apanteles militaris 157 378 402  
Aphelopus sp. a dryinid wasp 450  
Aphidius smithi an aphidiid wasp 217  
Aphis citricola spirea aphid 820  
Aphis gossypii cotton aphid 804  
Aphis pomi apple aphid 90 237 247  
 492 661 820  
Apthona nigriceps a chrysomelid  
 beetle 620  
Aphytis lingnanensis a eulophid wasp  
 248  
Apis mellifera honey bee 288  
 Apple aphid Aphis pomi  
 Apple maggot Rhagoletis pomonella  
 Apple rust mite Aculus schlech-  
tendali  
Apteronax helix a psychid moth 20  
Araecerus fasciculatus coffee bean  
 weevil 352  
Archips argyrospilus fruittree leaf-  
 roller 359  
Archips cerasivoranus uglynest cat-  
 pillar 594  
Argyrotaenia citrana orange tortrix  
 249  
Argyrotaenia velutinana redbanded  
 leafroller 340 387 468  
Arhopalus sp. a cerambycid beetle 75  
Arhopalus unicolor 599  
Arilus cristatus wheel bug 65  
 Army cutworm Euxoa auxiliaris  
 Armyworm Pseudaletia unipuncta  
Artacris macrorhynchus an eriophyid  
 mite 703  
 Ash plant bug Tropidosteptes amoenus  
 Asparagus beetle Crioceris asparagi  
Asphondylia sp. a cecidomyiid midge  
 315

Aspidiella hartii a diaspidid scale  
 212 681  
Aspidiella sacchari 838 849  
Aspidiotus elaeidis a diaspidid scale  
 118  
Aspidiotus nerii oleander scale 90  
Aster leafhopper Macrosteles fasci-  
frons  
Asterocampa celtis a nymphalid moth  
 271  
Asterolecanium miliaris robustum  
 a pit scale 20  
Asterolecanium minus 271-272  
Asterolecanium pseudomiliaris 20  
Asterolecanium quercicola 271-272  
Asterolecanium stentae 573  
Atherigona reversura a muscid fly 9  
 11  
Attacus sp. a saturniid moth 68  
Atta texana Texas leafcutting ant 56  
 820 827  
Aulacaspis rosae rose scale 32 35  
Ulacophora abdominalis pumpkin  
 beetle 13-14  
Aulocara elliotti bigheaded grass-  
 hopper 312 321 322 410 411 471 497  
 700 787 846  
Autographa californica alfalfa looper  
 165 191 193 216 285 305 335 382 463  
 486 491 538 585 745  
 Avocado seed moth Stenoma catenifer  
 Azalea lace bug Stephanitis pyrioides

#### SLUGS & SNAILS

Achatina achatina an achatinid snail  
 212  
Achatina fulica giant African snail  
 57 66 68 92 182 289 415 453 825 847

#### WEEDS

Abutilon theophrasti velvetleaf 445  
Acaena anserinifolia biddy-biddy 64  
 67  
 African boxthorn Lycium ferocissimum  
 Alligatorweed Alternanthera philo-  
xeroides  
Alternanthera philoxeroides alliga-  
 torweed 11  
Amaranthus sp. a weed 352  
 American barberry Berberis canadensis  
Arceuthobium spp. dwarf mistletoes 267

# B

## DISEASES

Bacillus larvae American foulbrood 288  
Bacillus popillae milky disease A 324  
Bacillus thuringiensis a larval disease 387  
Bacterial bean blight Xanthomonas phaseoli  
Bacterial stripe Pseudomonas andro-pogoni  
Bacterial tan spot Erwinia herbicola  
Bacterial stripe blight Pseudomonas striafaciens  
Barley covered smut Ustilago hordei  
Barley leaf rust Puccinia hordei  
Barley black loose smut Ustilago nigra  
Barley powdery mildew Erysiphe graminis f.sp. hordei  
Barley stripe Pyrenophora (Drechslera) graminea  
Barley yellow dwarf virus 142 332 333 354 377 402 462 485 512 584 629 812 814  
Basal glume rot Pseudomonas atrofaciens  
Bean anthracnose 'gamma' strain Colletotrichum lindemuthianum  
Bean brown spot blight Pseudomonas syringae  
Bean common mosaic virus 215  
Bean yellow mosaic virus 516-517 543 589 610  
Beauveria sp. a fungus 483  
Beauveria bassiana a corn borer fungus 122 123  
Beauveria globulifera 147  
Beet curly top virus 489 491  
Bidera avenae oat cyst nematode 851  
Bipolaris maydis, see Cochliobolus (Bipolaris) heterostrophus  
Bipolaris sorokiniana, see Cochliobolus (Bipolaris) sativus  
Bipolaris zicola, see Cochliobolus (Bipolaris) carbonum  
Black chaff Xanthomonas translucens f.sp. undulosa  
Black poplar shoot blight Venturia (Pollaccia) populina  
Black stain root disease Verticillium dielsii wagnerii  
Black stem rust Puccinia graminis  
Blue mold Peronospora tabacina

Brown stem rot Phialophora gregata  
Bursaphelenchus lignicolus pinewood nematode 207 210 238 241 492 499 548 551 593 597 732 761 785-786 788 821 826 842 848 849

## INSECTS

Bagworm Thyridopteryx ephemeraeformis  
Balsam woolly adelgid Adelges piceae  
Banded cucumber beetle Diabrotica balteata  
Banded pine weevil Pissodes notatus  
Banded sunflower moth Phalonia hospes  
Bandedwing whitefly Trialeurodes abutilonea  
Banks grass mite Oligonychus pratensis  
Banyan aphid Thoracaphis fici  
Baris strenua a weevil 568  
Barley thrips Limothrips denticornis  
Bathyplectes anurus an ichneumonid wasp 8 10 65 67 156 208 316 823  
Bathyplectes curculionis 7 10 103 114 156 239 280 287 310-311 316 342 389 428 823 844 850  
Bean butterfly Lampides boeticus  
Bean leaf beetle Cerotoma trifurcata  
Bean pod borer Maruca testulalis  
Beet armyworm Spodoptera exigua  
Beet leafhopper Circulifer tenellus  
Beet webworm Loxostege sticticalis  
Belopoeus niger a weevil 851  
Bertha armyworm Mamestra configurata  
Bigheaded grasshopper Aulocara elliotti  
Birch casebearer Coleophora serratella  
Birch leafminer Fenusa pusilla  
Black cherry fruit fly Rhagoletis fausta  
Black cutworm Agrotis ipsilon  
Black horse fly Tabanus atratus atratus  
Blacklegged tick Ixodes scapularis  
Black pecan aphid Tinocallis caryae-foliae  
Black pineleaf scale Nuculaspis californica  
Black twig borer Xylosandrus compactus  
Black vine weevil Otiorynchus sulcatus  
Blaesoxipha kellyi a sarcophagid fly 823  
Blatta lateralis a cockroach, revised page 15 after page 57



Blissus insularis southern chinch bug  
148 608

Blissus leucopterus hirtus hairy  
chinch bug

Blissus leucopterus leucopterus  
chinch bug 4 99 138 147 148 152 177  
178 202 230 253 276 278-279 301 331  
333 371 379 380 403 421 422 440 442  
461 462 483 535 561 582 606 652 670  
708 839

Blondelia nigripes a tachinid fly 318

Blue alfalfa aphid Acyrtosiphon  
kondoi

Blueberry flea beetle Altica sylvia

Bluegrass billbug Sphenophorus  
parvulus

Boisduval scale Diaspis boisduvalii

Boll weevil Anthonomus grandis  
grandis

Bollworm Heliothis zea

Boopedon nubilum a grasshopper 312  
321

Bothynus gibbosus carrot beetle 285  
338

Bovicola ovis sheep biting louse 294

Brachycolus asparagi an aphid 819 826

Brachystola magna lubber grasshopper  
475 496 522 823 827

Braggia uncompahgreensis an aphid 826

Braggia urovaneta 848

Brevennia rehi a mealybug 20

Brevicoryne brassicae cabbage aphid  
358

Broad mite Polyphagotarsonemus latus

Bronze birch borer Agilus anxius

Bronzed cutworm Nepheodes minians

Brown soft scale Coccus hesperidum

Brown stink bug Euschistus servus

Brown wheat mite Petrobia latens

Bruchophagus roddi alfalfa seed  
chalcid 404 630

Bruchus lentis a bruchid beetle 765

Bruchus pisorum pea weevil 547

Bucculatrix thurberiella cotton  
leaf perforator 188

Buck moth Hemileuca maia

Busseola fusca a noctuid moth 790

Byturus bakeri western raspberry  
fruitworm 249

## SLUGS & SNAILS

Bradybaena sp. a bradybaenid snail  
76

Bradybaena ravida 185

## WEEDS

Bellardia Bellardia trixago

Bellardia trixago Bellardia 392

Berberis canadensis American bar-  
berry 408

Biddy-biddy Acaena anserinifolia

## C

## DISEASES

Cedar-apple rust Gymnosporangium  
juniperi-virginianae

Cedar-hawthorn rust Gymnosporan-  
gium globosum

Cephalosporium gramineum cephalo-  
sporium stripe 141 229 254 278 332  
353 376 401 441 484 584 608 836 849

Cephalosporium stripe Cephalosporium  
gramineum

Ceratocystis ulmi Dutch elm disease  
269 341 593 716 750 761

Cercospora kikuchii purple stain 783

Cercospora medicaginis summer black  
stem and leaf spot 744 780

Cercospora sojae frogeye leaf spot  
565 727

Cercospora zeae-maydis corn gray leaf  
spot 724 809-810 826

Cercospora zebrina clover summer  
black stem and leaf spot 1/ 160 423  
462 512-513 563 585 653 671 689 725

Cereal anthracnose Colletotrichum  
graminicola

Chalkbrood Ascosphaera apis

Charcoal rot Macrophomina phaseolina  
Cladosporium sp. an ear rot 771

Claviceps purpurea ergot 584 608 844

Clover sclerotinia wilt Sclerotinia  
trifoliorum

Clover summer black stem and leaf  
spot Cercospora zebrina

Cochliobolus (Bipolaris) carbonum  
helminthosporium leaf spot 2/ 529  
557 577 604 647 685 648 685 707 739  
757 769 793

1/ Carried as summer black stem in  
Vo. 4.

2/ Carried as Helminthosporium car-  
bonum in VoL. 4.



Cochliobolus (Bipolaris) hetero-  
strophus southern leaf blight 1/ 529  
 577 604 647 685 723 739 757 769  
Cochliobolus (Bipolaris) sativus spot  
 blotch 2/ 141 377  
Colletotrichum dematium f.sp. trun-  
cata lima bean anthracnose 727  
Colletotrichum graminicola cereal  
anthracnose 3/ 19 120 499 506 530-  
 531 558 578 597 686 809  
anthracnose leaf blight 437 459 479  
 499 604 648 686 707 740 757 770  
anthracnose stalk rot 757 834  
Colletotrichum lindemuthianum bean  
anthracnose 'gamma' strain 19 215  
Colletotrichum phomoides tomato ripe  
 rot 761  
Colletotrichum pisi pea anthracnose  
 revised page 490 after page 553  
Colletotrichum trifolii southern an-  
thrachnose 160 463 513 671 726  
Comandrea blister rust Cronartium  
comandreae  
Common leaf spot Pseudopeziza medi-  
caginis  
Common maize rust Puccinia sorghi  
Common smut Ustilago maydis  
Coniella granati a fungus 790  
Conifer root and heart rot Fomes  
annosus  
Coniothyrium atriplicinum a fungus 57  
 315  
Coniothyrium dracaenae 643  
Corn borer protozoan Nosema pyraustae  
Corn brown spot Physoderma maydis  
Corn eyespot Kabatella zeae  
Corn gray leaf spot Cercospora zeae-  
maydis  
Corn lethal necrosis 121 122  
Corynebacterium nebraskense goss's  
 wilt 71 75 121  
Crazy top Sclerophthora macrospora  
Criconema sp. a spine nematode 102  
 111  
Criconemoides sp. a ring nematode 284

- 1/ Also carried as Helminthosporium  
maydis or Bipolaris maydis in  
 Vol. 4.
- 2/ Carried as Cochliobolus (Helmin-  
thosporium) sativus or Helmintho-  
sporium sativum in Vol. 4.
- 3/ Carried as anthracnose leaf spot  
 or anthracnose leaf blight in  
 Vol. 4.

Cronartium fusiforme fusiform rust  
 266  
Cronartium quercuum eastern gall rust  
 341  
Cronartium ribicola white pine  
 blister rust 260  
Crown and stem rot complex 443  
Crown gall Agrobacterium tumefaciens  
Crown rust Puccinia coronata  
Crucifer downy mildew Peronospora  
parasitica  
Cucurbit bacterial wilt Erwinia  
tracheiphila  
Cucurbit root rot Fusarium solani  
 f.sp. cucurbitae  
Cucurbit septoria leaf spot Septoria  
cucurbitacearum  
Curvularia spp. curvularia leaf spots  
 506 578

## INSECTS

Cabbage aphid Brevicoryne brassicae  
Cabbage looper Trichoplusia ni  
Cabbage maggot Hyalemya brassicae  
Cabbage moth Mamestra brassicae  
Cabbage seedpod weevil Ceutorhynchus  
assimilis  
Cabbage webworm Hellula rogatalis  
Cacoeimorpha pronubana a tortricid  
 moth 107  
Calaphis betulella an aphid 822 826  
California red scale Aonidiella  
aurantii  
Calliroa cerasi pear sawfly 637  
Callosobruchus phaseoli a bruchid  
 beetle 292  
Calomycterus setarius imported long-  
 horned weevil 544 820 827  
Camnula sp. 617  
Camnula pellucida clearwinged grass-  
 hopper 320 322 361 470 521 471 550  
 699  
Camponotus crassus an ant 434  
Camponotus vagus 118  
Carmin spider mite Tetranychus  
cinnabarinus  
Carolina grasshopper Dissosteira  
carolina  
Carphoborus minimus a scolytid beetle  
 68  
Carpophilus hemipterus driedfruit  
 beetle 847  
Carpophilus humeralis a nitidulid  
 beetle 847  
Carrot beetle Bothynus gibbosus

Cassida circumdata a chrysomelid beetle 12  
Cataenococcus guatemalensis a mealy-bug 573  
Catolethrus fallax a weevil' 501  
Caulocampus acericaulis maple petiole borer 20  
Cecidomyia pini a cecidomyiid midge 107  
Cecidophyopsis vermiformis an eriophyid mite 248  
Celama sorghetella sorghum webworm 133 606 626 708 724  
Cephus cinctus wheat stem sawfly 147 485 814  
Ceramica picta zebra caterpillar 749  
Cerataphis sp. an aphid 573  
Ceratitidis capitata Mediterranean fruit fly 159 212 315 348 364 474 666  
Cereal leaf beetle Oulema melanopus  
Cerococcus dekleyi a pit scale 573 666  
Cerotoma trifurcata bean leaf beetle 172 235 285 383 632 657 673 693 713 728 747 760  
Ceutorhynchus assimilis cabbage seed-pod weevil 63 66 218 358  
Chaetocnema pulicaria corn flea beetle 121 136 297 298 329 331 367 370 397 398  
Chaetophlepsis plathypenae a tachinid fly 171  
Chaetosiphon fragaefolii strawberry aphid 249-250  
Chelymophra geniculata a chrysomelid beetle 115  
Cherry fruit fly Rhagoletis cingulata  
Chilo sp. a pyralid moth 36  
Chilo phragmitellus 315  
Chilodes maritima a noctuid moth 456  
Chinch bug Blissus leucopterus leucopterus  
Chinese rose beetle Adoretus sinicus  
Chionaspis pinifoliae pine needle scale 309 341 677  
Chionodes psiloptera a gelechiid moth 148  
Chlorochroa ligata conchuela 29 34 61 67 354  
Chlorochroa sayi Say stink bug 138 147 189 354  
Choristoneura fumiferana spruce budworm 91 93 265 360 448 492 548 637  
Choristoneura occidentalis western spruce budworm 267  
Choristoneura rosaceana obliquebanded leafroller 785  
Chortinaspis subchortina a diaspidid scale 20  
Christmas berry webworm Cryptoblabes gnidiella  
Chrysobothris texana a buprestid beetle 842 848 849  
Chrysolina quadrigemina Klamathweed beetle 318  
Chrysomphalus dictyospermi dictyospermum scale 309 313  
Chrysopa spp. 138 311  
Chrysopa carnea common green lacewing 104  
Chrysops ater a tabanid fly 221  
Chrysops beameri 220 221  
Chrysops callidus 221  
Chrysops calvus 221  
Chrysops carbonarius 221  
Chrysops celatus 220 221  
Chrysops cincticornis cincticornis 221  
Chrysops cuclux 221  
Chrysops flavidus 221  
Chrysops impunctus 221  
Chrysops indus 221  
Chrysops macquarti 221  
Chrysops moechus 222  
Chrysops niger 222  
Chrysops pikei 222  
Chrysops sackeni 222  
Chrysops sequax tau 222  
Chrysops shermani 222  
Chrysops univittatus 222  
Chrysops vittatus 222  
Chrysoteuchia topiaria cranberry girdler 801  
Cimolus obscurus a coreid bug 83  
Cinara tujaefilina an aphid 820  
Cinnabar moth Tyria jacobaeae  
Circulifer tenellus beet leafhopper 191  
Cisseps fulvicollis an arctiid moth 585  
Citrus blackfly Aleurocanthus woglumi  
Citrus mealybug Planococcus citri  
Citrus red mite Panonychus citri  
Citrus rust mite Phyllocoptruta oleivora  
Citrus snow scale Unaspis citri  
Citrus swallowtail Papilio xuthus  
Citrus thrips Scirtothrips citri  
Citrus whitefly Dialeurodes citri  
Clastoptera achatina pecan spittlebug 340 492 820  
Clastoptera xanthocephala sunflower spittlebug 35

Clavaspis herculeanus a diaspidid scale 763  
Clearwinged grasshopper Camnula pellucida  
Clouded plant bug Neurocolpus nubilus  
Clover leaf weevil Hypera punctata  
Clover root curculio Sitona hispidulus  
Clover stem borer Languria mozardi  
Cnaphalocrocis medinalis a pyralid moth 57 790  
Coccinella septempunctata bruckii a lady beetle 241  
Coccinella septempunctata septempunctata 239 318 804 844 848  
Coccipolipus epilachnae a podapolipid mite 521 523 763  
Coccotrypes sp. a scolytid beetle 107  
Coccus hesperidum brown soft scale 407  
Cochliomyia hominivorax screwworm 33 40 55 65 73 82 92 104 114 156 182 209 240 261 289 312 325 344 362 391 431 453 498 523 700 718 751 762 787 804 824 846  
Cocklebur weevil Rhodobaenus tredecimpunctatus  
Coconut leafroller Hedylepta blackburni  
Codling moth Laspeyresia pomonella  
Coelophora inaequalis a lady beetle 241  
Coelophora pupillata tenspotted lady beetle 342 392  
Coenorhinus sp. a weevil 243  
Coffee bean weevil Araecerus fasciculatus  
Colaspis brunnea grape colaspis 93 144 154 173 488 632 812 817 827 839-840 850  
Colecerus marmoratus a curculionid beetle 116  
Coleomegilla maculata a lady beetle 156 317  
Coleophora serratella birch case-bearer 493  
Colias eurytheme alfalfa caterpillar 101 160 164 180 305 336 356 463 538 608 653 671 690 745 759 781  
Coloradia pandora pandora moth 548  
Colorado tanacetina an aphid, revised page 15 after page 57  
Colorado potato beetle Leptinotarsa decemlineata  
Common cattle grub Hypoderma lineatum  
Common green lacewing Chrysopa carnea

Compsilura concinnata a tachinid fly 786  
Comstockiella sabalis a diaspidid scale 63 67 841 849  
Conarthrus ferrugineus a weevil 348  
Conchuela Chlorochroa ligata  
Conotrachelus sp. a weevil 57  
Conotrachelus aguacatae 185 553  
Conotrachelus leucophaeatus 79 83  
Conotrachelus nenuphar plum curculio 113 340 387  
Contarinia johnsoni grape blossom midge 250  
Contarinia schulzi a cecidomyiid midge 193 466 546  
Contarinia sorghicola sorghum midge 138 511 534 606 627 652 758  
Convergent lady beetle Hippodamia convergens  
Cooley spruce gall adelgid Adelges cooleyi  
Copitarsia sp. a noctuid moth 185  
Coptotermes formosanus Formosan subterranean termite 735  
Copturus sp. a weevil 394  
Coquillettidia perturbans a mosquito 428 449 470 520 549 698  
Cordillacris sp. a grasshopper 312  
Cordillacris crenulata 321  
Cordillacris occipitalis cinerea 846  
Corn earworm Heliothis zea  
Corn flea beetle Chaetocnema pulicaria  
Corn leaf aphid Rhopalosiphum maidis  
Corn root aphid Anuraphis maiditradicis  
Corythucha salicata a tingid bug 715  
Cossonus cylindricus a weevil 806  
Cotinis nitida green June beetle 661  
Cotton aphid Aphis gossypii  
Cotton flea hopper Pseudatomoscelis seriatus  
Cotton leaf perforator Bucculatrix thurberiella  
Cotton leafworm Alabama argillacea  
Cottony cushion scale Icerya purchasi  
Cranberry girdler Chrysoteuchia topiaria  
Craterocercus obtusus a tenthredinid sawfly 83  
Crioceris asparagi asparagus beetle 258 339 345 491 499  
Crioceris duodecimpunctata spotted asparagus beetle 206 210 258 339  
Croesia semipurpurana oak leaf tier 266



Crymodes devastator glassy cutworm  
131 744  
Cryptoblabes gnidiella Christmas  
berry webworm 42  
Cryptophlebia leucotreta false  
codling moth 42 264 474  
Cryptophlebia ombrodelta litchi fruit  
moth 415  
Ctenocallis setosus an aphid 40 41  
Cuerna costalis a leafhopper 1/ 31 34  
Culex spp. mosquitoes 342  
Culex nigripalpus 786  
Culex pipiens 388  
Culex restuans 449  
Culex salinarius 449  
Culex tarsalis 361  
Culiseta inornata a mosquito 103 156  
388  
Curculio sp. 118  
Curculio caryae pecan weevil 248 592  
616 637 661 676 697 715 731  
Cycloneda sanguinea a lady beetle 91  
317  
Cylas formicarius elegantulus sweet-  
potato weevil 213  
Cylas puncticollis a weevil 620  
Cylindrocopturus adpersus a weevil  
546  
Cynthia cardui painted lady 192  
Cystiphora schmidtii a cecidomyiid  
midge 318

#### SLUGS & SNAILS

Cochlicella barbara a helixid snail  
185  
Cochlicella conoidea 474 681  
Cochlicella ventrosa 364

#### WEEDS

Canada thistle Cirsium arvense  
Cardoon Cynara cardunculus  
Carduus nutans musk thistle 318 389  
408 549  
Carduus tenuiflorus slenderflower  
thistle 403 412  
Centaurea repens Russian knapweed 56  
Chondrilla juncea rush skeletonweed  
316  
Cirsium arvense Canada thistle 828  
850  
Cirsium crassicaule a thistle 392

1/ Carried as Cuerna lateralis in  
Vol. 4.

Cirsium ochrocentrum 850  
Cowpea witchweed Striga gesnerioides  
Cynara cardunculus cardoon 523

## D

#### DISEASES

Diaporthe phaseolorum f.sp. caulivora  
soybean stem canker 168 564 588 630  
654 726 745 782  
Diaporthe (Phomopsis) phaseolorum  
f.sp. sojae soybean pod and stem  
blight 168 654 710 726 745 781 800  
Diplodia maydis diplodia stalk rot 3  
121 649 771 772  
Diplodia stalk rot Diplodia maydis  
Ditylenchus sp. a blub and stem nema-  
tode 423  
Ditylenchus dipsaci stem nematode 42  
Drechslera trichostoma, see Pyreno-  
phora (Drechslera) trichostoma  
Dryland root and foot rot Fusarium  
and Helminthosporium spp. or  
Fusarium spp. and Helminthosporium  
sativum  
Dutch elm disease Ceratocystis ulmi

#### INSECTS

Dactylotrypes longicollis a scolytid  
beetle 243  
Dactynotus rudbeckiae goldenglow  
aphid 75  
Dactynotus russellae 20  
Dacus sp. a tephritid fly 829  
Dacus cucurbitae melon fly 12 264 804  
Dacus dorsalis oriental fruit fly 85  
348 666  
Darksided cutworm Euxoa messoria  
Dasineura gleditchiae a cecidomyiid  
midge 20 271 287 549 551 822 826  
Datana integerrima walnut caterpillar  
548 637  
Dectes texanus texanus a cerambycid  
beetle 173  
Deilephila nerii oleander hawk moth  
498  
Deltocephalus sonorus a leafhopper  
Dendroctonus brevicornis western pine  
beetle 267  
Dendroctonus frontalis southern pine  
beetle 259 262 265-266 677 750 761  
821  
Dendroctonus ponderosae mountain pine  
beetle 267

Dendroctonus pseudotsugae Douglas-fir beetle 267  
Dendroctonus rufipennis spruce beetle 267  
Dermacentor albipictus winter tick 21 843  
Dermacentor variabilis American dog tick 156 208 388  
Dermatophagoides pteronyssinus European house dust mite 843 848  
Dermeestes peruvianus a dermestid beetle 287 290  
Devastating grasshopper Melanoplus devastator  
Diabrotica spp. corn rootworms 134 253 276 440 460-461 482 510 534 560 581 626 652 688 743 795-796 835-836  
Diabrotica balteata banded cucumber beetle 29 34 812 827  
Diabrotica longicornis northern corn rootworm 71 75 134 135 136 482 510 534 581 626 652 670 671 743 795-796 835  
Diabrotica tibialis a chrysomelid beetle 31 34  
Diabrotica undecimpunctata howardi southern corn rootworm 29 31 35 72 93 111 116 174 308 634 674 714 818  
Diabrotica virgifera western corn rootworm 3 11 79 83 134 135 136 440 482 499 510 534 560-561 581 606 626-627 641 652 743 758 763 795-796 797 812 828 835-836 835 836 850  
Dialeurodes citri citrus whitefly 469  
Dialeurodes kirkaldyi Kirkaldy whitefly 21 115 804  
Diamondback moth Plutella xylostella  
Diaparsis n.sp. an ichneumonid wasp 21 319 450 494 499 569 618 823 827  
Diaparsis spp. 316 319  
Diaphania hyalinata melonworm 219  
Diaphania nitidalis pickleworm 219 426 468  
Diapheromera femorata walkingstick 272  
Diapheromera persimilis 105 827  
Diapheromera velti 105  
Diaphorina citri a psyllid 415 526  
Diaprepes abbreviatus West Indian sugarcane root borer 114 412 434 453 526 643 754  
Diarsia rosaria a noctuid moth 249  
Diaspidiotus ancylus Putnam scale 454  
Diaspidiotus coniferarum a diaspidid scale 7 10  
Diaspidiotus liquidambaris 663 802 805 843 849  
Diaspidiotus mcombi 21 618  
Diaspis boisduvalii Boisduval scale 6 10  
Diaspis bromeliae pineapple scale 72 75  
Diaspis dignus a diaspidid scale 701  
Diaspis elaeidis 159  
Diatraea grandiosella southwestern corn borer 127 151 177 398 480-481 509 533 560 580 605 651 687 708 742 775-776 796 811  
Diatraea saccharalis sugarcane borer 127  
Dibolia borealis a chrysomelid beetle 105  
Dibolia reyheria 92  
Dichocrocis punctiferalis a pyralid moth 12  
Dichomeris ligulella palmerworm 271 290  
Dichomeris marginella juniper webworm 81  
Dictyospermum scale Chrysomphalus dictyospermi  
Differential grasshopper Melanoplus differentialis  
Dingy cutworm Feltia ducens  
Dioryctria zimmermani Zimmerman pine moth 638  
Diprion similis introduced pine sawfly 469 732 842 848  
Disonycha glabrata a chrysomelid beetle 62 67 812 819 827  
Dissosteira carolina Carolina grasshopper 323  
Dogwood borer Synanthedon scitula  
Douglas-fir beetle Dendroctonus pseudotsugae  
Douglas-fir tussock moth Orgyia pseudotsugata  
Draeculacephala delongi a leafhopper 34  
Draeculacephala mollipes watercress sharpshooter 35  
Drepanopterna femoratum a grasshopper 321 787  
Driedfruit beetle Carpophilus hemipterus  
Dryocoetes villosus a scolytid beetle 348 scale  
Duplaspidiotus fossor, revised page 15 after page 57  
Dysaphis plantaginea rosy apple aphid 181 247 259

Dysmicoccus neobrevipes gray pine-  
apple mealybug 1/ 64 66  
Dysmicoccus pini Colus 2/ 7 11

## WEEDS

Dalmatian toadflax Linaria dalmatica

## **E**

## DISEASES

Eastern gall rust Cronartium quercum  
Entomophthora spp. insect fungi 310  
471 485  
Entomophthora phytonomi 161 260 310  
815 822 826  
Ergot Claviceps purpurea  
Erwinia spp. bacterial stalk rot 741  
a tip rot 191  
Erwinia amylovora fire blight 407  
Erwinia herbicola bacterial tan spot  
167 169 672 679  
Erwinia stewartii Stewart's wilt 121  
136 297 298 329 331 367 370 397 398  
437 479 499 507 558 604 650 686 741  
Erwinia tracheiphila cucurbit bacte-  
rial wilt 219 447 696  
Erysiphe cichoracearum a powdery  
mildew 660 696 784  
Erysiphe graminis f.sp. hordei barley  
powdery mildew 332  
Erysiphe graminis f.sp. tritici wheat  
powdery mildew 139 140 229 254 277  
299 353 375 401 441 484 536 583 607  
Erysiphe polygoni legume powdery  
mildew 191  
European foulbrood Achromobacter  
eurydice  
Exserohilum turcicum, see Setos-  
phaeria (Exserohilum) turcica

## INSECTS

Earias fabia a noctuid moth 36  
Ear tick Otobius megnini  
Eastern subterranean termite Reticu-  
litermes flavipes  
Eastern tent caterpillar Malacosoma  
americanum

1/ Carried as a mealybug in Vol. 4.

2/ Carried as McKenzie pine mealybug  
in Vol. 4.

Eggplant fruit borer Leucinodes  
orbonalis  
Egyptian alfalfa weevil Hypera  
brunneipennis  
Eightspotted forester Alypia octoma-  
culata  
Elasmolomus v-album a lygaeid bug 66  
Elasmopalpus lignosellus lesser corn-  
stalk borer 144 174 218 336 465 488  
509 590 612 633 634 658 693 777  
Elm leaf beetle Pyrralta luteola  
Elm spanworm Ennomos subsignarius  
Ematurga amitaria a geometrid moth  
249  
Empoasca fabae potato leafhopper 160  
166-167 173 215 257 265 283 306 336  
382-383 385 404 424 443-444 447 463  
465 467 486 489 491 513-514 538 544  
564 591 658 674 690 709  
Endopiza viteana grape berry moth 249  
469  
English grain aphid Macrosiphum  
avenae  
Ennomos subsignarius elm spanworm 341  
548  
Epargyreus clarus silverspotted  
skipper 172 673  
Ephestia albicostalis a pyralid moth  
392  
Epicaerus cognatus potato weevil 1/  
36  
Epicauta pestifera margined blister  
beetle 213  
Epidiaspis sp. a diaspidid scale 681  
Epilachna nigrocineta a coccinellid  
beetle 12  
Epilachna varivestis Mexican bean  
beetle 172-173 216 307-308 338-339  
356 404 446 447 465 521 544 589 591  
631-632 636 657 673 693 713 728 747  
759 815-816  
Epinotia aporema an olethreutid moth  
57 85  
Epitrimerus pseudotsugae an eriophyid  
mite 7 10  
Epitrix cucumeris potato flea beetle  
385  
Epitrix hirtipennis tobacco flea  
beetle 190 241 384 679  
Ergates sp. a cerambycid beetle 185  
Eriborus terebrans an ichneumonid  
wasp 123  
Eriophyes n.sp. an eriophyid mite 523  
Eriophyes calibaccharis 10

1/ Carried as a weevil in Vol. 4.



Eriophyes chondrillae 318  
Eriophyes solipini 362  
Eriophyes tulipae wheat curl mite 141  
 142 147 152 178 796 798  
Eriophyes vaga an eriophyid mite 523  
Eriosoma lanigerum woolly apple aphid  
 841  
Eritettix sp. a grasshopper 65 208  
Erythroneura comes a leafhopper 250  
 750  
Esenbeckia incisuralis a tabanid fly  
 850  
Estigmene acrea saltmarsh caterpillar  
 285. Light traps: 33 55 65 74 92 106  
 117 158 184 211 242 263 290 314 346-  
 347 363 393 413 433 455 473 500 524  
 552 572 598 619 664-665 680 702 719  
 734 764 825  
Ethmia colonella kou leafworm 55  
Eucelatoria armigera a tachinid fly  
 157  
Eutheola humilis rugiceps sugarcane  
 beetle 137 276 298 307 330 398  
Euides vanduzeei a delphacid plant-  
 hopper  
Eulythis diversilineata grapevine  
 looper 249  
Euphoria sepulchralis a scarab 177  
Eupithecia sp. a geometrid moth 292  
European chafer Rhizotrogus majalis  
European cherry fruit fly Rhagoletis  
cerasi  
European corn borer Ostrinia nubil-  
alis  
European crane fly Tipula paludosa  
European earwig Forficula auricularia  
European fruit scale Quadraspidiotus  
ostreaeformis  
European grain moth Nemapogon  
granelia  
European hornet Vespa crabro germana  
European house dust mite Dermato-  
phagoides pteronyssinus  
European pine sawfly Neodiprion  
sertifer  
European pine shoot moth Rhyacionia  
buoliana  
European red mite Panonychus ulmi  
Eurycoccus jessica a mealybug 21  
Euscepes postfasciatus West Indian  
 sweetpotato weevil 42  
Euschistus servus brown stink bug 658  
 673 693 714 748 760  
Eutetranychus banksi Texas citrus  
 mite 804  
Euxoa auxiliaris army cutworm 79 100  
 101 111 112 144 152 154 178 180 202

230 254 298 301 384 725 758 836.  
 Light traps: 211 242 291 346 363 393  
 413 433 455 473 524 664 702 719 753  
 764 789  
Euxoa detersa a noctuid moth 1/ 298  
 330 460  
Euxoa messoria darksided cutworm 130  
 131 172 192 330 446  
Euxoa ochrogaster redbacked cutworm  
 192 193 338  
Euxoa tessellata striped cutworm 131  
 192  
Exitianus exitiosus gray lawn leaf-  
 hopper 30 34  
Exitianus picatus 53  
Exorista japonica a tachinid fly 318

## WEEDS

Enydra martima a composite revised  
 page 15 after page 57

## F

## DISEASES

Fire blight Erwinia amylovora  
Fomes annosus conifer root and heart  
 rot 266 268  
 Frog-eye leaf spot Cercospora sojae  
Fusarium spp. a crown rot 537 563 584  
 a dry bean root rot revised page  
 490 after page 553 744  
 an ear rot 771  
 a fusarium crown rot 229  
 fusarium root and collar rot complex  
 586  
 fusarium root and crown root complex  
 423  
 fusarium root rots 367  
 leaf spots 401  
 scab 141 377 401 441 485 536 584 608  
 stalk rots 121 769 771 773  
 a winter kill complex 401  
Fusarium spp. and Helminthosporium  
sativum dryland root and foot rot  
 177  
Fusarium head blight Gibberella  
 (Fusarium) moniliforme  
Fusarium sp. and Helminthosporium sp.  
 dryland root and foot rot 277 376  
Fusarium kernel rot Gibberella  
 (Fusarium) moniliforme

1/ Carried as sandhill cutworm in  
 part in Vol. 4

Fusarium lateritium f.sp. pini pitch  
canker 266  
Fusarium moniliforme, see Gibberella  
(Fusarium) moniliforme  
Fusarium oxysporum f.sp. lycopersici  
tomato wilt 213  
Fusarium roseum f.sp. cerealis, see  
Gibberella (Fusarium) roseum f.sp.  
cerealis  
Fusarium solani f.sp. cucurbitae  
cucurbit root rot 219  
Fusarium solani f.sp. pisi a pea root  
rot 467 revised page 490 after  
page 553  
Fusiform rust Cronartium fusiforme

## INSECTS

Face fly Musca autumnalis  
Fall armyworm Spodoptera frugiperda  
Fall cankerworm Alsophila pometaria  
Fall webworm Hyphantria cunea  
False celery leaf-tier Udea profunda-  
lis  
False codling moth Cryptophlebia  
leucotreta  
Faronta diffusa wheat head armyworm  
Light traps: 211 242 291 346 363 393  
413 433 473 500 524 572 598 664 680  
702 719 753 764  
Feltia ducens dingy cutworm 130 131  
132 298 330 352 370 383 385 398 424  
Feltia subterranea granulate cutworm  
174 205 748. Light traps: 8 65 106  
117 158 184 211 242 263 291 314 346  
363 393 413 455 473 500 524 552 572  
598 619 642 664 680 702 719 734 753  
764 789 805 825  
Fenusa pusilla birch leafminer 316  
Fern scale Pinnaspis aspidistrae  
Filbert bud mite Phytocoptella  
avellanae  
Filbertworm Melissopus latiferreanus  
Fiorinia pinicola a diaspidid scale  
42  
Fiorinia theae tea scale 64 67  
Forcipomyia indecora a ceratopogonid  
fly 1/ 40  
Forda formicaria an aphid 21  
Forest tent caterpillar Malacosoma  
disstria  
Forficula auricularia European earwig  
182 842 849

1/ Carried as Forcipomyia ingrami in  
Vol. 4.

Formica pallidefulva pallidefulva  
an ant 105 262  
Formosan subterranean termite Copto-  
termes formosanus  
Frankliniella spp. 306 337 384  
Frankliniella brevicaulis 16  
Frankliniella fusca tobacco thrips  
306 337 357 405 518  
Frankliniella occidentalis western  
flower thrips 90 207 344 547  
Frankliniella schultzei 21  
Fruit-tree leafroller Archips argyro-  
pilus  
Fumibotys fumalis a pyralid moth 193  
567 801

## G

## DISEASES

Gaeumannomyces graminis f.sp. tritici  
take-all 139 141 332 353 376 422 484  
511 536 583 607 812 826  
Gibberella spp. ear rot 771  
stalk rots 771 773  
Gibberella (Fusarium) spp. stalk rots  
793 833  
Gibberella (Fusarium) moniliforme  
fusarium head blight 723 740 757  
fusarium kernel rot 3 757  
fusarium stalk rot 3  
Gibberella (Fusarium) roseum f.sp.  
cerealis Gibberella stalk rot 3 121  
757 793 809  
red ear rot 3 740 757 809  
Gibberella stalk rot Gibberella  
(Fusarium) roseum f.sp. cerealis  
Globodera rostochiensis golden nema-  
tode 790  
Gloeocercospora sorghi zonate leaf  
spot 3 10 623  
Golden nematode Globodera rostochi-  
ensis  
Goss's wilt Corynebacterium nebras-  
kense  
Greasy spot Mycosphaerella citri  
Gremmeniella abietina scleroderris  
canker "Great Lakes & European  
strains" 266  
Gymnosporangium globosum cedar-  
hawthorn rust 308  
Gymnosporangium juniperi-virginianae  
cedar-apple rust 237 244 308 359

## INSECTS

Gahaniola phragmites a eurytomid 434  
Gallot Belgicus saevus a reduviid bug 16  
 Garden webworm Loxostege rantis  
Gerstaeckeria sp. a weevil 94  
Giraudiella inclusa a cecidomyiid midge 243  
 Glassy cutworm Crymodes devastator  
Glena cognataria a geometrid moth 249  
Glischrochilus quadrisignatus a nitidulid beetle 21  
 Gloomy scale Melanaspis tenebricosa  
 Goldenglow aphid Dactynotus rudbeckiae  
 Granulate cutworm Feltia subterranea  
 Grape berry moth Endopiza viteana  
 Grape blossom midge Contarinia johnsoni  
 Grape cane gallmaker Ampelogypter sesostris  
 Grape colaspis Colaspis brunnea  
 Grape mealybug Pseudococcus maritimus  
 Grape root borer Vitacea polistiformis  
 Grapevine looper Eulythis diversilineata  
Graphognathus spp. whitefringed beetles 632 673 708 713 728 747  
Graphognathus fecundus 641 776 788  
Graphognathus peregrinus 632 641  
Grapholitha sp. an olethreutid moth 806  
Grapholitha molesta oriental fruit moth 237 259 286 309 785  
Grapholitha prunivora lesser appleworm 340  
 Grasshoppers 33 65 104 114 138 167 174 182 190 208 240 261 288-289 312 318 320-323 343-344 356 361-362 380 390 399 411-412 423 424 426 429-431 445 452 464 465 470-472 495-497 499 514 521-522 550 570-571 586 596 617 634 640-641 654 659 662 678 689 690 699 717 724-725 730 751 752 762 780 787 804 823 845-846  
 Gray lawn leafhopper Exitianus exitiosus  
 Gray pineapple mealbug Dysmicoccus neobrevipes  
 Greedy scale Hemiberlesia rapax  
 Green cloverworm Plathypena scabra  
 Green June beetle Cotinis nitida  
 Green peach aphid Myzus persicae  
 Green stink bug Acrosternum hilare  
 Greenbug Schizaphis graminum

Greenhouse whitefly Trialeurodes vaporariorum

Griburius Tecontei a chrysomelid beetle 115

Gulf Coast tick Amblyomma maculatum  
Gymnaspis aechmeae a diaspidid scale 72 75 81 83 427 432

Gyponana germari a leafhopper 16 104  
 Gypsy moth Lymantria dispar

## SLUGS & SNAILS

Giant African snail Achatina fulica

## H

## DISEASES

Halo blight Pseudomonas coronafaciens  
 Head smut Sphacelotheca reiliana  
Helicotylenchus sp. a spiral nematode 102 257 284 358 661

Helminthosporium spp. crown rot 229  
 a dryland root and foot rot 584  
 helminthosporium blight 686  
 a leaf blotch 377  
 seedling blights 140  
 a winter kill complex 401

Helminthosporium avenae, see Pyrenophora (Drechslera) chaetomoides

Helminthosporium carbonum, see Cochliobolus (Bipolaris) carbonum

Helminthosporium leaf spot Cochliobolus (Bipolaris) carbonum

Helminthosporium maydis, see Cochliobolus (Bipolaris) heterostrophus

Helminthosporium sativum, see Cochliobolus (Bipolaris) sativus

Helminthosporium turcicum, see Setosphaeria (Exserohilum) turcica

Hemicyclophora sp. a sheath nematode 379

Heterodera sp. 257 284

Heterodera amaranthi 112 115

Heterodera glycines soybean cyst nematode 5 10 19 62 67 169 517 656 692 701 728 733 784 788 800 817 826

Heterodera mani 16

Heterodera oryzae 806

Holcus spot Pseudomonas syringae

Hoplolaimus sp. a lance nematode 257 284 403

Hypoxylon atropunctatum a hypoxylon canker 387



## INSECTS

Hadrotettix trifasciatus a grasshopper 787  
Haematobia irritans horn fly 7 64 103  
 114 208 239 260 287 293 310 341-342  
 360 388 407 427 449 469 493 520 549  
 568 594 616 638 662 697-698 716 732  
 751 762 786 802 822 843  
Hairy chinch bug Blissus leucopterus hirtus  
Haplorhynchites aeneus a weevil 567  
Harlequin bug Murgantia histrionica  
Harrisina brillians western grape-  
 leaf skeletonizer 731  
Hedylepta blackburni coconut leaf-  
 roller 66  
Heilipus bioculatus a weevil 474  
Heliothis spp. noctuid moths 189  
 217-218 219 633 672 675-677 694-695  
 714 730-731 761 785  
 bollworms 186 187 188 384 405 425  
 445 446 466 488 517 545-546 566-567  
 590 613-614 633 635 658 659 674 675  
 694 695 714 730 761 784  
Heliothis virescens tobacco budworm 5  
 170 186 187 188 189 205 230 284 307  
 337-338 357 384 405-406 425 446 466  
 488 517 518 545-546 566-567 613 615-  
 635 658 659 674-675 694 695 714 730-  
 731. Light traps: 33 55 65 74 92 106  
 117 158 184 211 242 263 291 346 363  
 393 413 433 455 500 524 552 572 598  
 619 642 664-665 680 702 719 734 753  
 764 789 825  
Heliothis zea bollworm, corn earworm,  
 tomato fruitworm 53 63 111 127 128  
 129 169-170 174 187-188 192 214 227  
 230 275 298 307 330 351 386 398 405-  
 406 425 440 445 446 466 481 486 488  
 517 533 545-546 560 566-567 580 590  
 605 611 613-615 625 632 634 635 651  
 656 657 658 659 670 672 674-675 687  
 690 692 693 694-695 708 713 714 724  
 729 730-731 743 748 776 784. Light  
 traps: 33 55 65 74 92 106 117 158  
 184 211 242 263 291 314 346 363 393  
 413 433 455 473 500 524 552 572 598  
 619 642 664-665 680 702 719 734 753  
 764 789 805 825  
Hellula rogatalis cabbage webworm 5  
 66 218  
Hemiberlesia lataniae latania scale  
 91 238 359  
Hemiberlesia mcombi a diaspidid  
 scale 618  
Hemiberlesia rapax greedy scale 618

Hemicoelus carinatus an anobiid  
 beetle 21  
Hemileuca maia buck moth 360  
Hemileuca oliviae range caterpillar  
 81 156 240 289 325 362 412 431 453  
 551 663  
Hesperocimex coloradensis a cimicid  
 bug 822 827  
Hesperotettix sp. a grasshopper 430  
Hesperotettix speciosus 471  
Hesperotettix viridis 411  
Hessian fly Mayetiola destructor  
Heterocampa manteo variable oak leaf  
 caterpillar 271  
Hibiscus whitefly Pealius hibisci  
Hickory shuckworm Laspeyresia caryana  
Hippodamia spp. 138 627  
Hippodamia convergens convergent lady  
 beetle 91 156 317 388  
Hippodamia parenthesis 156  
Hippodamia sinuata crotch 21  
Hippodamia tredecimpunctata tibialis  
 thirteenspotted lady beetle 317  
Homalodisca coagulata a leafhopper 31  
 34  
Homalodisca insolita 29 34  
Homoeosoma sp. a pyralid moth 754  
Homoeosoma electellum sunflower moth  
 80 83 192 489 518 546 635  
Honey bee Apis mellifera  
Horn fly Haematobia irritans  
House fly Musca domestica  
Howardia biclavis mining scale 238  
 241  
Hybomitra difficilis a tabanid fly  
 222  
Hybomitra lasiophthalma 222  
Hybomitra sodalis 222  
Hydroecia immanis a noctuid moth 134  
Hydroecia micacea potato stem borer  
 89 93 133 330 370 392 581 597 827  
Hylastes ater a scolytid beetle 57  
Hylemya antiqua onion maggot 219 308  
Hylemya brassicae cabbage maggot 113  
 218 308 467  
Hylemya platura seedcorn maggot 138  
 173 352 404 406  
Hylobius sp. 553  
Hylobius abietis 620  
Hylobius pales pales weevil 269 341  
Hylurgopinus rufipes native elm bark  
 beetle 91 93 697 701  
Hylurgops palliatus a scolytid beetle  
 292 364 394 501 599  
Hymenia perspectalis spotted beet  
 webworm 63 67

Hypera sp. 553  
Hypera brunneipennis Egyptian alfalfa weevil 71 80 89 101 112 154 164 204 235 256  
Hypera castor 22 83  
Hypera meles 235  
Hypera nigrostris lesser clover leaf weevil 304 404  
Hypera postica alfalfa weevil 4 7 39 61 67 71 80 89 93 100-101 103 111 153-154 160-164 179-180 203-204 233-235 255-256 260 280-282 288 290 303-304 305 310-311 316 334-335 342 355-356 381-382 389 403-404 423 425 428 443 450 463 472 485-486 537 630 653 690 709 718 744-745 759 780-781 798-799 814-815 816 822 823 838 844  
Hypera punctata clover leaf weevil 18 282 799 815  
Hyphantria cunea fall webworm 54 56 245 269 270 448 492 593 661 677 715  
Hypoderma bovis northern cattle grub 407  
Hypoderma lineatum common cattle grub 7 32 822 843  
Hypothenemus sp. a scolytid beetle

#### SLUGS & SNAILS

Helicella caperata a helcid snail 212 501 735  
Helicella conspurcata 42 394 501  
Helicella cretica 735  
Helicella maritima 85  
Helicella protea 185 501  
Helicella virgata 573  
Helix aperta a helcid snail 828  
Helix aspersa brown garden snail 265 806

#### WEEDS

Harmel Peganum harmala  
 Heartleaf cocklebur Xanthium strumarium  
Hypericum perforatum St. Johnswort 318

#### I

#### INSECTS

Icerya purchasi cottonycushion scale 248  
Ichthyura inclusa poplar tentmaker 271

Icius hartii an attid spider 105  
 Imported cabbageworm Pieris rapae  
 Imported longhorned weevil Calomycterus setarius  
Incisitermes sp. a termite 474 599  
 Introduced pine sawfly Diprion similis  
Iodes scapularis blacklegged tick 843  
Ips cembrae a scolytid beetle 76 94  
Ips sexdentatus 754 790  
Ips typographus 159 348 681  
Irbisia spp. mirid bugs 361 470  
Irbisia brachycera 311  
Irbisia pacifica 361  
Iridomyrmex sp. an ant 76  
Isorhinus sp. a weevil 765  
Itame sulphurea a geometrid moth 249  
 Itch mite Sarcoptes scabiei  
Ixodiphagus texanus an encyrtid wasp 22

#### J

#### INSECTS

Japanese beetle Popillia japonica  
 Juniper webworm Dichomeris marginella

#### K

#### DISEASES

Kabatiella zeae corn eyespot 121 506 604 707 724 740 771 795

#### INSECTS

Keiferia lycopersicella tomato pinworm 92 206 214 392 591 715 825 847  
 Khapra beetle Trogoderma granarium  
 Kirkaldy whitefly Dialeurodes kirkaldyi  
 Klamathweed beetle Chrysolina quadrigemina  
 Kou Leafworm Ethmia colonella  
Kurodaia flammei a biting louse 22  
Kuwanaspis linearis a diaspidid scale 16

# L

## DISEASES

Laminated root and butt rot Poria  
weirii  
Leaf spot Pseudomonas syringae  
Legume powdery mildew Erysiphe  
polygoni  
Lepto leaf spot Leptosphaerulina  
briosiana  
Leptonchus sp. a leptonchid nematode  
379  
Leptosphaeria (Septoria) avenaria  
speckled blotch 375 485 511 628  
Leptosphaeria (Septoria) nodorum  
septoria glume blotch 139 140 401  
Leptosphaerulina briosiana Lepto leaf  
spot 153 160 179 232 254 279-280  
302 355 423 462 513 562-563 689  
Leptotrochila medicaginis yellow leaf  
blotch 1/ 160 302 334 355 380 513  
563  
Leveilulla (Oidiopsis) taurica a pow-  
dery mildew 19  
Lima bean anthracnose Colletotrichum  
dematium f.sp. truncata  
Loose smut Ustilago tritici

## INSECTS

Labops spp. grass bugs 240 319  
Labops hesperius 240 361 470  
Lachnus salignus an aphid 843 849  
Lampides boeticus bean butterfly 94  
243  
Lamprodema maurum a lygaeid bug 290  
Languria mozdari clover stem borer 39  
41  
Lantana defoliator caterpillar Hypena  
strigata  
Lantana hispid Uroplata girardi  
Lantana lace bug Teleonemia scrupul-  
osa  
Lantana leaf beetle Octotoma scabri-  
pennis  
Lantana seed fly Ophiomyia lantanae  
Large white butterfly Pieris  
brassicae  
Lasioptera sp. a cecidomyiid midge 76

1/ Carried as Pseudopeziza jonesii  
in Vol. 4.

Lasioptera arundinis 364  
Laspeyresia caryana hickory shuckworm  
732  
Laspeyresia pomonella codling moth  
244-245 309 339-340 359 386 407 448  
468 491 519 547 568 592 616 636 697  
715 731 749 785 801. Light traps:  
346 500  
Latania scale Hemiberlesia lataniae  
Lathrolestes minutus an ichneumonid  
wasp 316  
Leaffooted bug Leptoglossus phyllopus  
Leek moth Acrolepia assectella  
Lema trilineata threelined potato  
beetle 111 116 241  
Lemophagus curtus an ichneumonid  
wasp 22 316 319 450 494 499 803 805  
Leperisinus varius a scolytid beetle  
806 851  
Lepidosaphes pallida a diaspidid  
scale 841 849  
Lepidosaphes pistaciae 681  
Lepidosaphes rubrovittatus 22  
Lepidosaphes ulmi oystershell scale  
427  
Lepidosaphes vermiculus 16  
Leptinotarsa decemlineata Colorado  
potato beetle 30 34 62 67 206 213  
236 258 285 338 385 406 446 489 591  
615 660 696  
Leptobyrsa decora a tingid bug 55  
Leptocera vagans a sphaerocerid fly  
698 701  
Leptoglossus phyllopus leaffooted  
bug 30 31 34 61 67  
Leptynoptera sulfurea a psyllid 115  
116 209  
Lesser appleworm Grapholitha pruni-  
vora  
Lesser clover leaf weevil Hypera  
nigrirostris  
Lesser cornstalk borer Elasmopalpus  
lignosellus  
Lesser peachtree borer Synanthedon  
pictipes  
Leucinodes orbonalis eggplant fruit  
borer 57 107  
Lilac borer Podosesia syringae  
Limnobaris sp. a weevil 94  
Limonius californicus sugarbeet wire-  
worm 136 191 440  
Limothrips denticornis barley thrips  
379  
Lindingaspis tingi a diaspidid scale  
107  
Liogenys macropelma a scarab 315  
Liothrips ocellatus a thrips 93



Liriomyza spp. 66 115 209 358 453 718  
788 804 825 847

Liriomyza sativae vegetable leafminer  
9 206 207 215 219 236 345

Lissorhoptrus oryzophilus rice water  
weevil 144 332

Litchi fruit moth Cryptophlebia  
ombrodelta

Lithophane latiginerea a noctuid moth  
388 842 850

Little fire ant Wasmannia auro-  
punctata

Lobesia botrana an olethreutid moth  
620

Locust borer Megacyllene robiniae

Locust leafminer Odontota dorsalis

Lone star tick Amblyomma americanum

Longitarsus jacobaeae a flea beetle  
318

Loxagrotis albicosta western bean  
cutworm 133 217 482 510 581 626 670

Loxostege commixtalis alfalfa webworm  
305 336

Loxostege rantis garden webworm 1/  
486. Light traps: 346 393 413 500 517  
538 572

Loxostege sticticalis beet webworm

Light traps: 413 473 524 680 702

Lubber grasshopper Brachystola magna

Lydella thompsoni a tachinid fly 758

Lygaeospilus tripunctatus a lygaeid  
bug 827

Lygaeus belfragei a lygaeid bug 102  
105

Lygus spp. lygus bugs 5 90 189 205 236  
257 284 306 307 336 338 356 404 464  
486 514 538 546 564 586 609 630 654  
659 671 690 726 745 781 800 817 839

Lygus elisus pale legume bug 167

Lygus hesperus 167

Lygus lineolaris tarnished plant bug  
90 112 154 181 188 205 247 248 279  
284 286 306 336 383 446 466 488 518  
591 615 671 817

Lymantria dispar gypsy moth 8 261

265-266 289 312 317 318 323-324 362  
431 452 472 497 550 571 596 618 641  
662 700 717 751 762 786 824 828 842  
846 848

Lysiphlebus testaceipes an aphidiid  
wasp 103 137 138 145 146 317 428 482  
521 534 561 581 617 652 758

1/ Carried as Achyra rantis in Vol.  
4.

## SLUGS & SNAILS

Lamellaxis sp. a subulinid snail 643

## WEEDS

Linaria dalmatica Dalmatian toadflax  
116

Lycium ferocissimum African boxthorn  
56

## M

## DISEASES

Macrophomina phaseolina charcoal rot  
121 167 168 515 586 649 655 727 771  
774

Maize chlorotic mottle virus 71 75

Maize dwarf mosaic virus 121 329 331  
397 419 437-438 459 479 483 499 507  
531 559 579 605 623 625 650 670 686-  
687 771

Meloidogyne sp. 62 236

Meloidogyne naasi wheat root-knot  
nematode 701 812 826

Microsphaera diffusa a powdery mildew  
588 711 727 746 782

Milky disease A Bacillus popilliae

Mycosphaerella sp. a fungus 94 456

Mycosphaerella berkeleyi peanut leaf  
spot 611

Mycosphaerella (Cercospora) cruenta  
727

Mycosphaerella citri greasy spot 248  
Mycosphaerella plataniifolia planetree  
leaf spot 786

## INSECTS

Macalla thyrsalis a pyralid moth  
259

Macrocentrus grandii a braconid wasp  
605 708 724

Macroductylus subspinosus rose chafer  
412

Macrosiphoniella tanacetaria an aphid  
40 41

Macrosiphum avenae English grain  
aphid 145 146 230 301 332 333 379  
512 562 814

Macrosiphum euphorbiae potato aphid  
241 489 660 715

Macrostelus fascifrons aster leaf-  
hopper 141 146 286 308 333 379 386  
402 442 462 468

Magdalis gentilis a weevil 22  
Magical cicada septendecim periodical  
cicada 360 388  
Maize billbug Sphenophorus maidis  
Malacosoma spp. tent caterpillars 266  
Malacosoma americanum eastern tent  
caterpillar 90 113 208 237 244 245-  
246 271 340 359 387  
Malacosoma californicum western tent  
caterpillar 102  
Malacosoma disstria forest tent  
caterpillar 266 341 593  
Maladera sp. a scarab 681  
Mamestra brassicae cabbage moth 12  
553  
Mamestra configurata bertha armyworm  
538 671 749  
Manduca sp. a sphingid moth 190  
Manduca quinquemaculata tomato horn-  
worm 190 215 591. Light traps: 33 55  
65 74 92 106 117 184 211 242 263 346  
363 393 413 433 473 524 552 572 598  
619 664-665 680 734 764 825  
Manduca sexta tobacco hornworm 190  
205 307 338 357 406 425 466 489 518.  
Light traps: 33 55 65 74 92 106 117  
184 211 242 263 393 413 433 455 473  
500 524 552 572 598 619 642 664-665  
680 702 719 734 753 764 825  
Maple leafcutter Paraclemensia  
acerifoliella  
Maple petiole borer Caulocampus aceri-  
caulis  
Margined blister beetle Epicauta  
pestifera  
Maruca testulalis bean pod borer 159  
434 599 643 681  
Masonaphis lambersi an aphid 54 56  
Mayetiola destructor Hessian fly 139  
144-155 178 278 378 402 422 585 629  
689 725 777 796-797 812-813 836-837  
McDaniel spider mite Tetranychus  
mcdanieli  
Meadow spittlebug Philaenus spumarius  
Mecas pergrata a cerambycid beetle 34  
788  
Mecistocerus sp. a weevil 118  
Mediterranean fruit fly Ceratitis  
capitata  
Medythia suturalis a striped leaf  
beetle 95-96  
Megacerus eulophus a bruchid beetle  
68  
Megachile rotundata alfalfa leafcut-  
ting bee 317 361 617  
Megacyllene robiniae locust borer 493

Megastigmus schimitscheki a torymid  
wasp 159  
Melanaphis sacchari sugarcane aphid  
16 119 137  
Melanaspis obscura obscure scale 843  
850  
Melanaspis smilacis a diaspidid scale  
32 34  
Melanaspis tenax 666 765  
Melanaspis tenebricosa gloomy scale  
843 850  
Melanopleurus belfragei a lygaeid bug  
22  
Melanoplus spp. 173 261 289 312 320  
356 390 411 426 429 430 471 475 497  
550 514 571 596 662 717 725 780 804  
Melanoplus angustipennis 343 411  
Melanoplus bivittatus two-striped  
grasshopper 167 289 312 321 322 323  
343 390-391 411 412 429 430 432 452  
465 470 471 472 475 496 497 522 570  
571 596 678 700 717 751 787  
Melanoplus confusus 390 391 411  
Melanoplus dawsoni 596 717  
Melanoplus devastator devastating  
grasshopper 390 452 495 521 596 617  
699  
Melanoplus differentialis differen-  
tial grasshopper 33 34 65 67 138 148  
182 312 321 322 323 362 390 410 411  
412 429 430 452 471 475 496-497 522  
550 570 596 634 700 717 724-725 251  
787  
Melanoplus femurrubrum redlegged  
grasshopper 167 323 429 430 452 470  
471 475 538 550 571 596 654 700 717  
724-725 751 787  
Melanoplus foedus 343  
Melanoplus gladstoni 787  
Melanoplus takinus 321  
Melanoplus occidentalis 240 312 321  
787  
Melanoplus packardii Packard grass-  
hopper 312 321 322 429 452 475 596  
678 717 787  
Melanoplus sanguinipes migratory  
grasshopper 182 288 306 312 320 321  
322 323 343 344 361 390-391 410 411  
429 430 452 470 471 472 475 495 496  
497 521 550 596 640 678 699-700 717  
733 752 762 787 804 846  
Melanoplus turnbulli 700  
Melissopus latiferreanus filbertworm  
491  
Melittia satyriniformis squash vine  
borer 31 35

Melon fly Dacus cucurbitae  
 Melonworm Diaphania hyalinata  
 Melophasus ovinus sheep ked 294  
Melormensis antillarum West Indian  
 flatid 847 850  
Mermiria sp. a grasshopper 323 700  
Mermiria maculipennis maculipennis 1/  
 288 321 787  
Meromyza americana wheat stem maggot  
 145 301 537 689 797 837  
Metamasius sp. a weevil 42 85  
Metamasius callizona 57  
Metator pardalinus a grasshopper 288  
 321 787  
Meteorus autographae a braconid wasp  
 283  
 Mexican bean beetle Epilachna  
varivestis  
 Mexican black scale Saissetia miranda  
 Mexican fruit fly Anastrepha ludens  
Microctonus aethiopoides a braconid  
 wasp 288 345 450 822 844-845 849  
Microgaster lareynii puncturevine  
 seed weevil 104 105 182 183 843 844  
 Migratory grasshopper Melanoplus san-  
guinipes  
Mimosestes nubigens a bruchid beetle  
 115  
 Mining scale Howardia biclavis  
Monochamus alternatus a cerambycid  
 beetle 243  
 Mormon cricket Anabrus simplex  
 Mountain pine beetle Dendroctonus  
ponderosae  
 Mourningcloak butterfly Nymphalis  
antiopa  
Murgantia histrionica harlequin bug  
 63 67  
Musca autumnalis face fly 103 260 287  
 293 310 342 360 388 407 427 449 469  
 493 549 568 594 638 662 677 698 716  
 732  
Musca domestica house fly 294  
Mycetaspis apicata a diaspidid scale  
 16  
Myrmecocystus romainei an ant 82  
Myzocallis agrifolcola an aphid 103  
 105  
Myzus persicae green peach aphid 71  
 72 80 102 112 113 155 189 190 205  
 213 215 219 237 247 284 307 318 357  
 359 384 386 406 425 446 466 467 489  
 518 568 591 615 636 659 660 676 840

1/ Carried as Mermiria maculipennis in  
 part in Vol. 4.

## SLUGS & SNAILS

Monacha cantiana a helcid snail 264  
Monacha syriaca 553 620

## WEEDS

Musk thistle Carduus nutans

# N

## DISEASES

Nigrospora sp. an ear rot 771  
Nomuraea rileyi an insect fungus 171  
 283 692 712 729 760  
 Northern leaf blight Setosphaeria  
(Exserohilum) turcica  
Nosema apis nosema disease 449  
Nosema disease Nosema apis  
Nosema pyraustae corn borer protozoan  
 151 177 183 758  
 Nuclear polyhedrosis virus 289

## INSECTS

Nantucket pine tip moth Rhyacionia  
frustrana  
Nasutitermes sp. a termite 315  
 Native elm bark beetle Hylurgopinus  
rufipes  
 Navel orangeworm Amyelois transitella  
Nemapogon granella European grain mot  
 819 827  
Nematus abbotii a tenthredinid sawfly  
 81 83  
Neoclytus acuminatus redheaded ash  
 borer 64 67  
Neoclytus mucronatus mucronatus a  
 cerambycid beetle 22  
Neodiprion pinetum white pine sawfly  
 387  
Neodiprion pratti pratti Virginia  
 pine sawfly 469  
Neodiprion sertifer European pine  
 sawfly 286 309 341  
Neophasia menapia pine butterfly 269  
Neophyllaphis podocarpi an aphid 22  
Neotermes sp. a termite 185  
Nephaspis amnicola a lady beetle 825  
Nephelodes minians bronzed cutworm  
 148 254 709  
Nesosydne ipomoeicola a leafhopper 78  
Neurocylpus nubilus clouded plant bug  
 615



Nezara viridula southern green stink bug 29 30 35 62 67 71 75 206 658 673 693 713 714 729 730 748 760 817  
Niphades sp. a weevil 118  
Nomia melanderi alkali bee 317  
Northern cattle grub Hypoderma bovis  
Northern corn rootworm Diabrotica longicornis  
Northern pine weevil Pissodes approximatus  
Northern pitch twig moth Petrova albicapitana  
Nuculaspis californica black pineleaf scale 341 345 842 849  
Nymphalis antiopa mourningcloak butterfly 360  
Nysius coenosulus a lygaeid bug 344

## O

### DISEASES

Oat black loose smut Ustilago avenae  
Oat covered smut Ustilago kolleri  
Oat crown rust Puccinia coronata f.sp. avenae  
Oat cyst nematode Bidara avenae  
Oat stem rust Puccinia graminis f.sp. avenae  
Oidiopsis taurica, see Leveilulla (Oidiopsis) taurica  
Onion white rot Sclerotium cepivorum  
Onion yellow dwarf virus 74 75

### INSECTS

Oak leaf-tier Croesia semipurpurana  
Obliquebanded leafroller Choristoneura rosaceana  
Obscure root weevil Sciopithes obscurus  
Obscure scale Melanaspis obscura  
Octaspidiotus araucariae a diaspidid scale 17  
Octotoma scabripennis lantana leaf beetle 9  
Odonaspis penicillata a diaspidid scale 22  
Odonaspis ruthae 23  
Odontota dorsalis locust leafminer 310 697  
Oebalus pugnax rice stink bug 29 34 39 41 61 67 89 93 147 230  
Oedaleonotus enigma enigma a grasshopper 288 343 361 411 470 521 678 699

Oleander hawk moth Deilephila nerii  
Oleander scale Aspidiotus nerii  
Oligonychus ilicis southern red mite 72 75  
Oligonychus milleri a tetranychid moth 269  
Oligonychus pratensis Banks grass mite 139 582 606 608 627 652 758  
Oligonychus ununguis spruce spider mite 269  
Oligotrophus betulae a gall midge 36  
Olixon banksii a rhopalosomatid wasp 23  
Onion maggot Hylemya antiqua  
Onion thrips Thrips tabaci  
Ooencyrtus guamensis an encyrtid wasp 289  
Operophtera brumata winter moth 6 11 17 23 39 185 244 259 265 271 339 819 821 841 850  
Operophtera occidentalis a geometrid moth 841  
Ophiomyia lantanae lantana seed fly 9  
Opuntiaspis carinata a diaspidid scale 17  
Orange tortrix Argyrotaenia citrana  
Orangestriped oakworm Anisota senatoria  
Orchamoplatus mammaeferus a whitefly 9 364 599 790  
Orgyia pseudotsugata Douglas-fir tussock moth 267  
Orgyia thyellina a tussock moth 573  
Oriental fruit fly Dacus dorsalis  
Oriental fruit moth Grapholitha molesta  
Orius sp. an anthocorid bug 627  
Orthezia pseudinsignis an ortheziid scale 17  
Orthosia hibisci a noctuid moth 155  
Orthotomicus erosus a scolytid beetle 526  
Orthotomicus laricis 735 765  
Orthotomicus suturalis 643  
Osmia cornifrons an osmia bee 17  
Ostrinia nubilalis European corn borer 119 122 130 144 151 172 177 214 216 227 253 275 297 329 345 351 367-368 385 397-398 406 419-420 438-439 447 459-460 467 479-480 489 508-509 531-533 537 559-560 579-580 591 605 615 625 635 636 650-651 660 670 675 676 687 708 724 758 775 793 795 809 810 811 828 833 834-835. Light traps: 242 291 314 346-347 363 393 413-414 433 455 473 500 524-525 552

572 598 619 642 664-665 680 702 719  
 734 753 764 789  
Otiiorhynchus ligustici alfalfa snout  
 beetle 164  
Otiiorhynchus ovatus a weevil 1/ 191  
Otiiorhynchus rugosostriatus 23  
Otiiorhynchus sulcatus black vine  
 weevil 191 258 259 338  
Otobius megnini ear tick 493 786  
Oulema melanopus cereal leaf beetle 8  
 10 65 208 240 260-261 288 311 316  
 317 319 342 343 361 389-390 408 428  
 450 451 470 493-494 499 520 568 569  
 595 597 678 679 698 699 701 802-803  
 823 827  
 Oystershell scale Lepidosaphes ulmi

## SLUGS & SNAILS

Otala lactea a helicid snail 474  
Otala vermiculata 68 292

# P

## DISEASES

Paratylenchus sp. a pin nematode 111  
 151 257 355 661  
Pea anthracnose Colletotrichum pisi  
Pea bacterial blight Pseudomonas  
pisi  
Pea downy mildew Peronospora viciae  
Peach X-Disease virus 519  
Peanut leaf rust Puccinia arachidis  
Peanut leaf spot Mycosphaerella  
berkeleyi  
Pea root rot Aphanomyces euteiches  
Pellicularia koleroga thread blight  
 841 848 849  
Pellicularia (Sclerotium) rolfsii  
 southern blight 656  
Penicillium spp. ear rots 3 771  
Peronosclerospora sorghi sorghum  
 downy mildew 2/ 557 648 834 849  
Peronospora manshurica soybean downy  
 mildew 168 487 515 539-540 565 587-  
 588 609 630 654 655 672 690-691 710  
 727 746 782  
Peronospora parasitica crucifer downy  
 mildew 53 63

1/ Carried in error as Otiiorhynchus  
striatus in Vol. 4.

2/ Carried as Sclerospora sorghi in  
 Vol. 4.

Peronospora parasitica crucifer downy  
 mildew 53 63  
Peronospora tabacina blue mold 405  
 472 518 695 800  
Peronospora trifoliorum alfalfa downy  
 mildew 61 160 232 255 334 355 380  
 443  
Peronospora viciae pea downy mildew  
 revised page 490 after page 553  
Phakopsora pachyrhizi soybean rust  
 829  
Phialophora gregata brown stem rot 58  
 710 727 746  
Phoma medicaginis spring black stem  
 153 160 179 231 254 279 302 333 354  
 380 513 563  
Phoma oleracea f.sp. helianthi-tubero  
sunflower black stem 676 696  
Phomopsis sojae, see Diaporthe  
 (Phomopsis) phaseolorum f.sp. sojae  
Phyllachora engleri a fungus 599  
Phyllosticta leaf spot Phyllosticta  
sojaecola  
Phyllosticta sojaecola phyllosticta  
 leaf spot 444 487 514 541 564 587  
Phyllosticta solitaria apple blotch  
 697 761  
Phyllostictina sp. a fungus 735  
Phymatotrichum omnivorum Texas root  
 rot 186 244  
Physoderma maydis corn brown spot 558  
 578 648 771  
Phytophthora infestans potato/tomato  
 late blight 615  
Phytophthora megasperma a phytoph-  
 thora root rot 587  
Phytophthora megasperma f.sp. sojae  
phytophthora rot 167-168 464 486  
 514 538-539 564 586 609 630 654 746  
Phytophthora rot Phytophthora megas-  
perma f.sp. sojae  
Pinewood nematode Bursaphelenchus  
lignicolus  
Pitch canker Fusarium lateritium  
 f.sp. pini  
Planetree leaf spot Mycosphaerella  
platanifolia  
Plasmopara halstedii sunflower mildew  
 660  
Polymyxa graminis a primitive root  
 fungus 111  
Poria weirii laminated root and butt  
 rot 267  
Potato leaf roll virus 213 215  
Potato/tomato late blight Phytoph-  
thora infestans

- Potato virus Y 189 190 284 307 337 357 405  
Pratylenchus sp. a lesion nematode 99 102 111 151 155 236 257 284 355 423 426 508 810  
Pseudomonas andropogoni bacterial stripe 507 558 579 623 649-650 669 686 724 741  
Pseudomonas atrofaciens basal glume rot 353  
Pseudomonas coronafaciens halo blight 353 377 401 462 485 628-629  
Pseudomonas glycinea soybean bacterial blight 169 444 465 487 515-516 541-542 565 588-589 610 630-631 655 672 691 711 727-728 746 783  
Pseudomonas pisi bean brown spot blight revised page 490 after page 553  
   holcus spot 459 506-507 551 558 578 649 669 741 771  
   a leaf spot 419  
   pea bacterial blight revised page 490 after page 553  
   stone fruit bacterial canker 244  
Pseudomonas striafaciens bacterial stripe blight 512 536  
Pseudomonas tabaci wildfire 516  
Pseudopeziza jonesii see Leptotrichia medicaginis  
Pseudopeziza medicaginis common leaf spot 160 302 355 380 462 513 563 585  
Puccinia sp. a rust 599  
Puccinia arachidis peanut leaf rust 611 693 760  
Puccinia cacao 107  
Puccinia chondrillina skeletonweed rust 316  
Puccinia coronata crown rust 276 373 oat crown rust 461  
Puccinia coronata f.sp. avenae oat crown rust 228 373 400 422 441 461 483-484 511 535 562 582 607 627 777  
Puccinia graminis black stem rust 311 389 408 450 494 638  
Puccinia graminis f.sp. avenae oat stem rust 239 389 409 428 450 494-495 521 549 569-570 594-595 617 638 639  
Puccinia graminis f.sp. secalis a barley stem rust 638  
   rye stem rust 389 409 495 570 639  
Puccinia graminis f.sp. tritici a barley stem rust 408 494 569 594 638  
   wheat stem rust 239 319 389 409 428 451 495 549-550 570 595 639-640 786  
Puccinia helianthi sunflower rust 590 635 659 695 784  
Puccinia hordei barley leaf rust 1/ 228 484 562 582 628  
Puccinia melanocephala sugarcane rust 18 623 624 641  
Puccinia polysora southern rust 120 367 392 647 685 707 723 770 794 805 833-834 849  
Puccinia purpurea sorghum leaf rust 557 647 723 740  
Puccinia recondita f.sp. hordei, see Puccinia hordei  
Puccinia recondita f.sp. secalis rye leaf rust 299 373 484 562 628  
Puccinia recondita f.sp. tritici wheat leaf rust 139 228 253 299 331 353 372-373 399-400 440 461 483 511 535 561 582 606-607 627 725 777 796  
Puccinia sorghi common maize rust 119 419 505 530 557 577-578 603 623 647 669 685 686 739-740 757 763 770 793  
Puccinia striiformis wheat stripe rust 228 353 374 400 441 483  
Puccinia tillandsiae 643  
Puccinia urbaniana 620  
Purple stain Cercospora kikuchii  
Pyrenophora (Drechslera) chaetomoides helminthosporium leaf blotch 2/ 629  
Pyrenophora (Drechslera) chaetomoides helminthosporium leaf blotch  
Pyrenophora (Drechslera) graminea barley stripe 353  
Pyrenophora (Drechslera) tabacina blue mold 337 357  
Pyrenophora (Drechslera) trichostoma tan spot 141 151 178 228-229 254 277 300 332 353 376 401 462 511 536 583 629  
Pythium sp. a dry bean root rot revised page 490 after page 553  
   a winter kill complex 401  
Pythium debaryanum a pythium damping-off 167  
  
 INSECTS  
Pachydissus sp. a cerambycid beetle 599  
  
 1/ Carried as Puccinia recondita f.sp. hordei in part in Vol. 4.  
 2/ Carried as Helminthosporium avenae in Vol. 4.



Packard grasshopper Melanoplus packardii  
 Painted lady Cynthia cardui  
 Paleacrita vernata spring cankerworm  
 91 103 207 237 239 244 259 269 270  
 339 360 387  
 Pale legume bug Lygus elisus  
 Pale western cutworm Agrotis orthogonia  
 Pales weevil Hylobius pales  
 Palmerworm Dichomeris ligulella  
 Pamphilius amplexus a pamphiliid saw-fly 23 83  
 Pamphilius sitkensis 81 83 250  
 Panaphis juglandis an aphid 548  
 Pandora moth Coloradia pandora  
 Panonychus citri citrus red mite 90 821  
 Panonychus ulmi European red mite 207  
 237 247 286 309 387 448 468 492 592  
 637 661 697  
 Papaipema nebris stalk borer 133 276  
 298 369 398 421 439-440 447 460 482  
 Papaya fruit fly Toxotrypana curvicauda  
 Papilio xuthus citrus swallowtail 92  
 Parabemisia myricae a whitefly 17 54  
 56 91 93  
 Paraclemensia acerifoliella maple leafcutter 716  
 Paracoccus landoi a mealybug 851  
 Paradoxococcus mcDanieli a soft scale 1/ 241 523  
 Paraleyrodes naranjæ a whitefly 74  
 392 453  
 Paraleyrodes perseæ plumeria white-fly 74 75  
 Parandra brunnea a cerambycid beetle 23  
 Parasetigena silvestris a tachinid fly 323  
 Parlatorea proteus a diaspidid scale 23  
 Paromius longulus a lygaeid bug 231  
 Pea aphid Acyrtosiphon pisum  
 Pea leaf weevil Sitona lineatus  
 Pea weevil Bruchus pisorum  
 Peach twig borer Anarsia lineatella  
 Peachtree borer Synanthedon exitiosa  
 Pealus hibisci hibiscus whitefly 453  
 Pear psylla Psylla pyricola  
 Pear sawfly Caliroa cerasi  
 Pecan nut casebearer Acrobasis nuxvorella

Pecan phylloxera Phylloxera devastatrix  
 Pecan spittlebug Clastoptera achatina  
 Pecan weevil Curculio caryæ  
 Pectinophora gossypiella pink boll-worm 240 261 312 325 344 362 412 497  
 522 551 571 597 618 662 679 700 718  
 733 751 762 787 788 804 824 846  
 Pediasia trisecta a pyralid moth 301  
 Pediobius sp. a eulophid wasp 339  
 Pediobius foveolatus 173 338  
 Pegomya hyoscyami spinach leafminer 384  
 Pentamerismus erythreus a tenuipalpid spider mite 1/ 269  
 Penthalæus major winter grain mite 3  
 79 100 147 152 202 231 279 838  
 Pepper weevil Anthonomus eugenii  
 Peridroma saucia variegated cutworm  
 30 35 133 172 180 188 193 235 236 25  
 258 282-283 285 301 302 305 330 333  
 335 382 547 586. Light traps: 33 74  
 82 92 106 117 158 184 211 242 263  
 291 314 346-347 363 393 413-414 433  
 455 473 500 524-525 552 572 598 619  
 642 664 680 702 719 734 753 764 789  
 805 847  
 Periodical cicada Magicicada septendecim  
 Periploca nigra a walshiid moth 616  
 Peritrechus fraternus a lygaeid bug 2  
 Pero mizon a geometrid moth 286  
 Petrobia latens brown wheat mite 147  
 354 442  
 Petrova albicapitana northern pitch twig moth 181  
 Petrova metallica an olethreutid moth 750 752  
 Phaedon sp. a chrysomelid beetle 394  
 Phaenomerus sp. a weevil 434  
 Phalonia hospes banded sunflower moth 567  
 Phantacrus lobatus an eriophyid mite 54 56  
 Phenacoccus solani a mealybug 260 262  
 Philænus spumarius meadow spittlebug  
 4 11 166 181 183 205 238 250 284 336  
 383 404  
 Phitibostroma quadrimaculatum a grasshopper 312 321 390 411 787 846  
 Phloeosinus rudis a scolytid beetle  
 12 526 666  
 Phoetaliotes nebrascensis a grasshopper 321 411

1/ Carried as a mealybug in Vol. 4.

1/ Carried as a false spider mite in Vol. 4.

- Phoracantha semipunctata a cerambycid beetle 415 501 553  
Phragmataecia castaneae a cossid moth 394  
Phthorimaea operculella potato tuber-worm 696  
Phyllocoptruta oleivora citrus rust mite 249  
Phyllophaga sp. a scarab  
Phyllophaga aurea 24  
Phyllotreta cruciferae a chrysomelid beetle 218  
Phylloxera devastatrix pecan phylloxera 340  
Phymata pallida a phymatid bug 81 83  
Phytocoptella avellanae filbert bud mite 248  
Pickleworm Diaphania nitidalis  
Pieris sp. a pierid butterfly 36  
Pieris brassicae large white butterfly 85 364 501  
Pieris protodice southern cabbageworm 5  
Pieris rapae imported cabbageworm 181 217 236 240 308 339 358 385 467 519 591-592 696  
Pineapple scale Diaspis bromeliae  
Pine butterfly Neophasia menapia  
Pine needle scale Chionaspis pini-foliae  
Pine tortoise scale Toumeyella parvicornis  
Pink bollworm Pectinophora gossypiella  
Pinnaspis aspidistrae fern scale 637 641 820 827  
Pissodes sp. a weevil 315 790  
Pissodes approximatus northern pine weevil 341  
Pissodes cembrae a weevil 434 526  
Pissodes notatus banded pine weevil 526  
Pissodes pini 456  
Pityogenes bidentatus a scolytid beetle 829  
Pityogenes bistridentatus 36 703  
Pityogenes chalcographus 107 292  
Pityogenes quadridens 620  
Plagiometriona clavata a chrysomelid beetle 113 116  
Planococcus citri citrus mealybug 90  
Plathypena scabra green cloverworm 170-171 235 283 305 336 382 465 565 586 590 611 633 657 671 672-673 690 692 712 729 748  
Platynota idaeusalis a tortricid moth 841  
Platynota stultana 591
- Platypus sp. a platypodid beetle 243  
Platypus compositus 801 805  
Plectia nearctica a bibionid fly 287 716  
Plum curculio Conotrachelus nenuphar  
Plumeria whitefly Paraleyrodes perseae  
Plum rust mite Aculus fockeui  
Plutella xylostella diamondback moth 5 63 113 155 206 218 308 345 385 426 804 840 847  
Pnirontis modesta a reduviid bug 73 75  
Podisus placidus a stink bug 24  
Podosesia syringae lilac borer 309 310 313  
Pogonocherus fasciculatus a cerambycid beetle 76  
Polyphagotarsonemus latus broad mite 74  
Polyphylla decemlineata tenlined June beetle 246  
Polyraphis sp. a cerambycid beetle 76  
Popillia japonica Japanese beetle 114 172 209 224 324 412 424 453 472 497 522 551 597 678  
Poplar tentmaker Ichthyura inclusa  
Potato aphid Macrosiphum euphorbiae  
Potato flea beetle Epitrix cucumeris  
Potato leafhopper Empoasca fabae  
Potato stem borer Hydroecia micacea  
Potato tuberworm Phthorimaea operculella  
Potato weevil Epicaerus cognatus  
Prays fulvocanellus an ermine moth 243  
Premnotypes sp. a weevil 703  
Proceidochares alani a tephritid fly 9  
Prociphilus fraxinifolii an aphid 360  
Prosapia bicincta twolined spittlebug 629  
Prospaltella opulenta an aphelinid wasp 1/ 317  
Psammotettix emarginatus a leafhopper 826  
Pseudaletia unipuncta armyworm 53 127 142-143 157 230 254 275 278 283 298 300-301 302 305 330 333 352 354 369 377-378 379 398 402 420-422 439 442 462 481 486 509-510 512 533 536-537 538 560 562 564 567 580 585 586 608 688 689 715 758-759 847. Light traps 8 33 41 55 65 74 106 117 158 184 211

1/ Carried as a eulophid wasp in Vol. 4.

242 263 291 314 346-347 363 393 413-  
414 433 455 473 500 524-525 552 572  
598 619 642 664-665 680 702 719 734  
753 764 789 805 825 847

Pseudaonidia trilobitiformis a diaspidid scale 750 752

Pseudatomoscelis seriatus cotton fleahopper 189 257 425 488 518 546

Pseudaulacaspis cockerelli a diaspidid scale 454

Pseudaulacaspis pentagona white peach scale 247

Pseudococcus citriculus a mealybug 85

Pseudococcus maritimus grape mealybug 247

Pseudolampsis guttata a chrysomelid beetle 24

Pseudopityophthorus minutissimus a scolytid beetle 697

Pseudoplusia includens soybean looper 171 445 488 611 633 657 692 712 729 747 760

Psoloessa sp. a grasshopper 208 288

Psorophora columbiae a mosquito 388

Psylla pyricola pear psylla 6 31 39 53 63 72 90 155 244 246-247 259 387 468 547

Psylliodes picina a chrysomelid beetle 202 210

Pulvinaria ixorae a coccid scale 474

Pulvinaria mesembryanthemi 821 827

Pumpkin beetle Aulacophora abdominalis

Puncturevine seed weevil Microlarinus laerynii

Putnam scale Diaspidiotus ancyclus

Pyropotosia pryeri a scarab 703

Pyrrhalta luteola elm leaf beetle 238 270 341 360 448 593

## SLUGS & SNAILS

Pallifera costaricensis a philomycid slug 394 553

## WEEDS

Parentucellia latifolia a weed 17

Peganum harmala harmel 25

Piptochaetium stipoides f.sp. purpurascens a ricegrass 345

Puncturevine Tribulus terrestris

## Q

### DISEASES

Quinisulcius sp. a stylet nematode 28

### INSECTS

Quadraspidiotus juglansregiae walnut scale 72 75

Quadraspidiotus ostreaeformis

European fruit scale 247

Quadraspidiotus perniciosus San Jose scale 340 637 785

Quadraspidiotus taxodii a diaspidid scale 448 454 618 638 641

## R

### DISEASES

Ramulispora sorghi sooty stripe 121 506 558 578 623 649 669 686 724

Red ear rot Gibberella (Fusarium) roseum f.sp. cerealis

Rhabdovirus 53

Rhizoctonia sp. a rhizoctonia crown rot 191

Rhizoctonia root rot Rhizoctonia solani

Rhizoctonia solani rhizoctonia root and stem rot 464

rhizoctonia root rot 547

rhizoctonia rot 487 539

sharp eyespot 353

turf brown patch 354

Rhizopus spp. rhizopus head rots 840 a tip rot 191 676

Rhynchosporium secalis scald Rhynchosporium secalis

Rhynchosporium secalis rhynchosporium scald 353

Rootless corn (cause unknown) 122

Rough spot Ascochyta sorghina

Rye leaf rust Puccinia recondita f.sp. secalis

Rye stem rust Puccinia graminis f.sp. secalis

### INSECTS

Rachiplusia ou a noctuid moth 34

Range caterpillar Hemileuca oliviae

Redbacked cutworm Euxoa ochrogaster



Redbanded leafroller Argyrotaenia  
velutinana  
Redheaded ash borer Neoclytus  
acuminatus  
Red imported fire ant Solenopsis  
invicta  
Redlegged grasshopper Melanoplus  
femurrubrum  
Rednecked peanutworm Stegasta  
bosqueella  
Redtailed tachinia Winthemia quadri-  
pustulata  
Reticulitermes spp. termites 103 239  
Reticulitermes flavipes eastern sub-  
 terranean termite 114 208 239 294  
Rhagium inquisitor a cerambycid beetle  
 842 848  
Rhagoletis berberis a tephritid fly  
 24  
Rhagoletis cerasi European cherry  
 fruit fly 434 754  
Rhagoletis cingulata cherry fruit fly  
 491  
Rhagoletis completa walnut husk fly  
 105 593 637 801 805  
Rhagoletis fausta black cherry fruit  
 fly 387  
Rhagoletis indifferens western cherry  
 fruit fly 246 340 448 468 568  
Rhagoletis pomonella apple maggot 246  
 468 491 519 592 636 661 715 731 750  
 785  
Rhagoletis striatella a tephritid fly  
 39 41  
Rhantus gutticollis a dytiscid beetle  
 66  
Rhinocyllus conicus a weevil 318 389  
 408 549 828  
Rhizoecus sp. a mealybug 118  
Rhizoecus americanus 32  
Rhizoecus dianthi 829  
Rhizoecus hibisci 6 10  
Rhizoecus simplex 207 210  
Rhizotrogus majalis European chafer  
 24 442  
Rhodobanus tredecimpunctatus  
 cocklebur weevil 30 34  
Rhopalosiphum maidis corn leaf aphid  
 71 137 276 371 461 479 482-483 534  
 561 581 652 670 708-709 724 743 744  
 776-777 780 798 812 814  
Rhopalosiphum padi 3 53 100 145 146  
 278 301 332 333 379 485 534 562 709  
 743 744 758 777 779-780 797-798 814  
 838  
Rhyacionia buoliana European pine  
 shoot moth 269 732

Rhyacionia frustrana Nantucket pine  
 tip moth 341  
Rhynchites sp. a weevil 364  
Rhyncolus porcatus a weevil 573  
Rice stink bug Oebalus pugnax  
Rice water weevil Lissorhoptrus  
oryzophilus  
Rice weevil Sitophilus oryzae  
Rose chafer Macrodactylus subspinosus  
Rose scale Aulacaspis rosae  
Rosy apple aphid Dysaphis plantaginea

## SLUGS & SNAILS

Rumina decollata a snail 93

## WEEDS

Rush skeletonweed Chondrilla juncea  
Russian knapweed Centaurea repens

# S

## DISEASES

Scleroderris canker "Great Lakes &  
 European strains" Gremmeniella  
abietina  
Sclerophthora macrospora crazy top  
 557 723 770 834 848  
 downy mildew 332 377 536  
 wheat downy mildew 536  
Sclerospora sorghi sorghum downy mil-  
 dew 79 83 121 557  
Sclerotinia dollar spot Sclerotinia  
homoeocarpa  
Sclerotinia homoeocarpa sclerotinia  
 dollar spot 798  
Sclerotinia sclerotiorum sclerotinia  
 stem rot 72 659-660 676 695 840  
Sclerotinia stem rot Sclerotinia  
sclerotiorum  
Sclerotinia trifoliorum clover  
sclerotinia wilt 381  
Sclerotium cepivorum onion white rot  
(Sclerotium) rolfsii, see Pellicularia  
(Sclerotium) rolfsii  
Septoria spp. a fungus 643  
 a septoria leaf blotch 583 628  
Septoria spp. septoria complex 140  
 441 484-485 607-608  
Septoria cucurbitacearum cucurbit  
 septoria leaf spot 696  
Septoria glume blotch Leptosphaeria  
 (Septoria) nodorum

Septoria glycines soybean brown spot  
168 444 464 487 515 540-541 564 587  
609-610 631 654-655 691 710 727 746  
782  
Septoria helianthi sunflower leaf  
spot 659 676 695  
Septoria selenophomoides a fungus  
Septoria tritici speckled leaf blotch  
139 140 229 254 277 300 332 353 374-  
375 400 441 462 515 536 583 607  
Setosphaeria (Exserohilum) turcica  
northern leaf blight 1/ 383 557 577  
604 648 669 685 686 707 723 739 793  
Skeletonweed rust Puccinia chondrilli-  
lina  
Shoestring root rot Armillaria mellea  
Smooth-spored bunt Tilletia foetida  
Soil-borne wheat mosaic virus 99 111  
139 142 151-152 178 230 585  
Sooty stripe Ramulispora sorghi  
Sorghum downy mildew Peronosclero-  
spora sorghi  
Sorghum leaf rust Puccinia purpurea  
Sorghum leaf streak Xanthomonas  
holcicola  
Southern anthracnose Colletotrichum  
trifolii  
Southern blight Pellicularia  
(Sclerotium) rolfsii  
Southern leaf blight Cochliobolus  
(Bipolaris) heterostrophus  
Southern rust Puccinia polysora  
Soybean bacterial blight Pseudomonas  
glycinea  
Soybean Brown spot Septoria glycines  
Soybean cyst nematode Heterodera  
glycines  
Soybean downy mildew Peronospora  
manshurica  
Soybean mosaic virus 167 169 444-445  
487 516 543 565 589 610 631 656  
Soybean pod and stem blight Diaporthe  
(Phomopsis) phaseolorum f.sp. sojae  
Soybean rust Phakopsora pachyrhizi  
Soybean stem canker Diaporthe phase-  
olorum f.sp. caulivora  
Speckled blotch Leptosphaeria  
(Septoria) avenaria  
Speckled leaf blotch Septoria tritici  
Sphacelotheca reiliana head smut 120  
739  
Sphaerotheca fuliginea a powdery  
mildew 819 828

1/ Carried as Helminthosporium tur-  
cicum in Vol 4.

Sphenospora mera a rust 463  
Spot blotch Cochliobolus (Bipolaris)  
sativus  
Spring black stem Phoma medicaginis  
Stalk rots 119  
Stem nematode Ditylenchus dipsaci  
Stemphylium botryosum stemphylium  
leaf blight 1/ 160 280 302 423 537  
Stemphylium leaf blight Stemphylium  
botryosum  
Stewart's wilt Erwinia stewartii  
Stone fruit bacterial canker Pseudo-  
monas syringae  
Streptococcus pluton a European foul-  
brood 288  
Sugarcane rust Puccinia melanocephala  
Sugarcane smut Ustilago scitaminea  
Summer black stem and leaf spot  
Cercospora medicaginis  
Sunflower black stem Phoma oleracea  
f.sp. helianthi-tuberosi  
Sunflower downy mildew Plasmopara  
halstedii  
Sunflower leaf spot Septoria  
helianthi  
Sunflower mildew Plasmopara halstedii  
Sunflower rust Puccinia helianthi

#### INSECTS

Saccharosydne saccharivora a ful-  
goroid planthopper 2/ 99 105  
Saddleback caterpillar Sibine sti-  
mulea  
Saissetia miranda Mexican black scale  
81 83  
Saltmarsh caterpillar Estigmene acrea  
Saltmarsh mosquito Aedes sollicitans  
Sanbornia juniperi an aphid 24  
San Jose scale Quadraspidiotus  
perniciosus  
Saperda carcharias a cerambycid  
beetle 212 754  
Sapyga pumila a sapygid wasp 361  
Sarcoptes scabiei itch mite 294  
Say stink bug Chlorochroa sayi  
Schistocerca sp. a grasshopper 182  
288 362  
Schistocerca americana American  
grasshopper 31 33 34  
Schistocerca shoshone 475

1/ Carried as stemphylium leaf  
spot in part in Vol. 4.

2/ Carried as a delphacid plant-  
hopper in Vol. 4.

Schizaphis graminum greenbug 3 29 53  
 61 100 103 137 145 146 148 152 202  
 230 276 278 299 317 329 331 332 370-  
 371 379 380 399 421 428 482 510 521  
 534 561 581 585 606 617 652 688 709  
 724 758 777-778 796 797 812 813-814  
 837 838  
Schizolachnus sp. an aphid 851  
Sciopithes obscurus obscure root  
 weevil 265  
Scirtothrips citri citrus thrips 102  
 248  
Scolytotplatypus pubescens a scolytid  
 beetle 85 104  
Scolytus multistriatus smaller  
 European elm bark beetle 7 11 91 93  
 454 593 597 786 788  
Scolytus rugulosus shothole borer 246  
Scolytus scolytus a scolytid beetle  
 348 364 415  
Scolytus sulcifrons a scolytid beetle  
 12  
 Screwworm Cochliomyia hominivorax  
Scytodes thoracica a scytodid spider  
 105  
 Seedcorn beetle Stenolophus lecontei  
 Seedcorn maggot Hylemya platura  
Selenaspis albus a diaspidid scale  
 7 10  
Selenomophalus euryae a diaspidid  
 scale 243  
Semiothisa santaremaria a geometrid  
 moth 33  
Sericothrips variabilis soybean  
 thrips 405  
 Sheep biting louse Bovicola ovis  
 Sheep ked Melophagus ovinus  
 Shieldbacked pine seedbug Tetyra  
bipunctata  
 Shothole borer Scolytus rugulosus  
Sibine stimulea saddleback cater-  
 pillar 32 850  
 Silverspotted skipper Epargyreus  
clarus  
Simulium spp. black flies 294  
Sipha flava yellow sugarcane aphid  
 331 371 836 848  
Sirex nitobei a siricid wasp 806  
Sitona hispidulus clover root curcu-  
 lio 162  
Sitona lineatus pea leaf weevil 206  
 216 256 258 358  
Sitophilus oryzae rice weevil 54 65  
 73 776  
 Smaller European elm bark beetle  
Scolytus multistriatus

Solenopsis invicta red imported fire  
 ant 82 83 114 127 156 345 679 787  
 804 846 850  
Solenopsis xyloni southern fire ant  
 32 35  
Sorghum midge Contarinia sorghicola  
Sorghum webworm Celama sorghiella  
 Southern armyworm Spodoptera  
eridania  
 Southern cabbageworm Pieris protodice  
 Southern chinch bug Blissus insularis  
 Southern corn billbug Sphenophorus  
callosus  
 Southern corn rootworm Diabrotica  
undecimpunctata howardi  
 Southern fire ant Solenopsis xyloni  
 Southern green stink bug Nezara  
viridula  
 Southern pine beetle Dendroctonus  
frontalis  
 Southern red mite Oligonychus ilicis  
 Southwestern corn borer Diatraea  
grandiosella  
 Soybean looper Pseudoplusia includens  
 Soybean thrips Sericothrips variabi-  
lis  
Sphenophorus callosus southern corn  
 billbug 136 227 253 276 298  
Sphenophorus maidis maize billbug 136  
 298  
Sphenophorus parvulus bluegrass bill-  
 bug 148 422 462 537 585  
 Spinach leafminer Pegomya hyoscyami  
 Spirea aphid Aphis citricola  
Spissistilus festinus threecornered  
 alfalfa hopper 464 586 634 654 671  
 690 710 726 745 759 781 800 816 839  
Spodoptera eridania southern armyworm  
 171 214  
Spodoptera exigua beet armyworm 99  
 111 160 164 188 205 213-214 217-218  
 219 236 337 345 352 562 619 653 657  
 690 692 713 728 748 749 759 781 817.  
 Light traps: 117 158 184 211 242 263  
 291 314 346 363 393 413 433 455 473  
 500 524 552 572 598 642 680 702 713  
 719 734 753 764 789 805 847  
Spodoptera frugiperda fall armyworm  
 106 111 127 128 143 192 214 275 298  
 330 351-352 370 386 398 420 439 481  
 510 517 560 562 567 580 585 606 612  
 619 626 633 635 651 658 659 670 671  
 688 689 695 708 709 713 714 715 724  
 726 743 745 758 835. Light traps: 33  
 55 65 74 92 117 184 211 242 263 314



363 393 413 433 455 473 500 524 533  
537 544 552 572 598 619 642 680 702  
719 734 753 764 789 805 825

Spodoptera ornithogalli yellowstriped  
armyworm 63 67 171 370 405 481 619.  
Light traps: 33 55 65 74 82 92 106  
117 158 184 211 242 263 291 311 346  
363 393 413 433 455 473 500 524 552  
572 598 642 680 702 719 734 753 764  
789 805 825

Spotted alfalfa aphid Therioaphis  
maculata

Spotted asparagus beetle Crioceris  
duodecimpunctata

Spotted beet webworm Hymenia perspec-  
talis

Spotted cutworm Amathes c-nigrum

Spring cankerworm Paleacrita vernata

Spruce beetle Dendroctonus rufipennis

Spruce budworm Choristoneura fumi-  
ferana

Spruce spider mite Oligonychus unun-  
guis

Squash bug Anasa tristis

Squash vine borer Melittia satyrini-  
formis

Stable fly Stomoxys calcitrans

Stalk borer Papaipema nebris

Stegasta bosqueella rednecked peanut-  
worm 357 424 590 658 693 714

Stenolemus lanipes a reduviid bug  
343 345

Stenolophus lecontei seedcorn beetle  
258

Stenolophus quinquepustulatus a cara-  
bid beetle 24

Stenoma catenifer avocado seed moth 94  
456

Stephanitis pyrioides azalea lace bug  
7

Stethorus sp. a lady beetle 627

Stibadium spumosum a noctuid moth 62  
66 67 192

Stiretrus anchorago a stink bug 32 35

Stobaera bilobata a delphacid plant-  
hopper 10

Stomoxys calcitrans stable fly 293-  
294 342 388 407 469 493 594 662 677  
698 716 732 751

Strauzia longipennis sunflower maggot  
446

Strawberry aphid Chaetosiphon fragae-  
folii

Strawberry weevil Anthonomus signatus

Striped cucumber beetle Acalymma  
vittata

Striped cutworm Euxoa tessellata

Sugarbeet root maggot Tetanops  
myopaeformis

Sugarbeet wireworm Limonis califor-  
nicus

Sugarcane aphid Melanaphis sacchari

Sugarcane beetle Euetheola humilis  
rugiceps

Sugarcane borer Diatraea saccharalis

Suleima helianthana sunflower bud  
moth 192 546

Sunflower beetle Zygogramma  
exclamationis

Sunflower bud moth Suleima helianth

Sunflower maggot Strauzia longipennis

Sunflower moth Homoeosoma electellum

Sunflower spittlebug Clastoptera  
xanthocephala

Sweetpotato hornworm Agrius cingulatu

Sweetpotato leaf beetle Typophorus  
nigritus viridicyaneus

Sweetpotato weevil Cylas formicarius  
elegantulus

Synanthedon exitiosa peachtree borer  
237 386 407 519 819

Synanthedon pictipes lesser peachtree  
borer 237

Synanthedon scitula dogwood borer 359

Syrbula admirabilis a grasshopper 321  
787

## SLUGS & SNAILS

Succinea horticola a succineid snail  
42

## WEEDS

Senecio jacobaea tansy ragwort 313  
318

Slenderflower thistle Carduus  
tenuiflorus

St. Johnswort Hypericum perforatum

Striga asiatica witchweed 824

Striga gesnerioides cowpea witchweed  
82 84

## **T**

## DISEASES

Take-all Gaeumannomyces graminis  
f.sp. tritici

Tan spot Pyrenophora (Drechslera)  
trichostoma

Texas root rot Phymatotrichum omni-  
vorum

Thread blight Pellicularia koleroga  
Tilletia foetida smooth-spored bunt  
485 584 608

Tobacco ringspot virus 169 728

Tomato ripe rot Colletotrichum  
phomoides

Tomato wilt Fusarium oxysporium f.sp.  
lycopersici

Trichodorus sp. a stubby-root nema-  
tode 379 661

Trichothecium spp. rots 3

Tylencholaimellus sp. a leptonchid  
nematode 379

Tylenchorhynchus sp. a stunt nematode  
102 111 151 157 257 284 355 358 379  
423 508 661

## INSECTS

Tabanus americanus a tabanid fly 223

Tabanus atratus atratus black horse-  
fly 223 493

Tabanus calens 223

Tabanus catenatus 223

Tabanus cymatophorus 220

Tabanus fairchildi 223

Tabanus lineola 223

Tabanus marginalis 223

Tabanus molestus molestus 223

Tabanus mularis a tabanid fly 493

Tabanus nigrescens 223

Tabanus nigripes 223

Tabanus pumilus 223

Tabanus quinquevittatus 223

Tabanus reinwardti 224

Tabanus sackeni 224

Tabanus similis 224

Tabanus sparus milleri 224

Tabanus subsimilis subsimilis 224

Tabanus sulcifrons 224

Tabanus superjumentarius 224

Tabanus trimaculatus 224

Taeniothrips eucharfi a thrips 703

Tanaos sp. a weevil 68

Taphrorhynchus sp. a scolytid beetle 36

Taphrorhynchus villifrons a scolytid  
beetle 348 851

Tarnished plant bug Lygus lineolaris

Tea scale Fiorinia theae

Tegonotus acidiotus an eriophyid mite  
10

Teleonemia scrupulosa lantana lace  
bug 55

Tenlined June beetle Polyphylla  
decemlineata

Tenspotted lady beetle Coelophora  
pupillata

Termes panamaensis a termite 85

Tetanops myopaeformis sugarbeet root  
maggot 181 183 191 205 210

Tetramesa sp. a eurytomid 434 735 754

Tetranychus cinnabarinus Carmine  
spider mite 82 92 453 679 825

Tetranychus mcdanieli McDaniel spider  
mite 247 492 637

Tetranychus urticae twospotted spider  
mite 139 155 174 193 250 338 564 606  
652 659 676

Tetrastichus julis a eulophid wasp 65  
67 317 319 342 450 493-494 499 520  
523 568-569 618 698 802-803 805 823  
827

Tetyra bipunctata shieldbacked pine  
seedbug 73 75

Texas citrus mite Eutetranychus banks

Texas leafcutting ant Atta texana

Therioaphis maculata spotted alfalfa  
aphid 4 24 30 154 166 241 257 283  
317 318 356 444 463 486 586 609 726

745 759 781 799-800 816 828 839

Thirteenspotted lady beetle Hippoda-  
mia tredecimpunctata tibialis

Thoracaphis ficif banyan aphid 212

Threecornered alfalfa hopper Spis-  
sistilus festinus

Threelined potato beetle Lema  
trilineata

Thrips obscuratus 68 474

Thrips tabaci onion thrips 40 104 240  
519 847

Thurberia weevil Anthonomus grandis  
thurberiae

Thymelicus lineola a hesperiid skip-  
per 422

Thyridopteryx ephemeriformis bagworm  
265 359 697

Tinocallis caryaefoliae black pecan  
aphid 732

Tipula paludosa European crane fly 14

Tobacco budworm Heliothis virescens

Tobacco flea beetle Epitrix

hirtipennis

Tobacco hornworm Manduca sexta

Tobacco thrips Frankliniella fusca

Tomato fruitworm Heliothis zea

Tomato hornworm Manduca quinque-  
maculata

Tomato pinworm Keiferia lycopersi-  
cella

Tomato ripe rot Colletotrichum  
phomoides

Tomicus piniperda a scolytid beetle  
456 829  
Toumeyella liriodendri tuliptree  
scale 64 67  
Toumeyella parvicornis pine tortoise  
scale 64 67 72 75  
Toumeyella pinicola a soft scale 91  
93  
Toxotrypana curvicauda papaya fruit  
fly 616  
Trachyrhachys kiowa a grasshopper 321  
411 846  
Tranes sp. a weevil  
Trathala flavoorbitalis an ichneu-  
monid wasp 788  
Trialeurodes abutilonea bandedwing  
whitefly 675  
Trialeurodes vaporariorum greenhouse  
whitefly 40 675 825  
Trichoplusia ni cabbage looper 5 30  
34 80 113 155 171 206 214 217-218  
219 236 285 345 358 447 547 592 615  
619 636 660 715 747 749 760 761 785.  
Light traps: 33 55 65 74 82 92 106  
117 158 184 211 242 263 291 346 363  
393 413 433 455 473 500 524 552 572  
598 642 680 702 719 734 753 764 789  
805 825  
Trigonotylus ruficornis a mirid bug  
1/ 30 34  
Trionymus caricis a mealybug 24  
Trioza tripunctata a psyllid 701  
Trisetacus pseudotsugae an eriophyid  
mite 54 56  
Trogoderma granarium khapra beetle 24  
348 394 573 754  
Tropidosteptes amoenus ash plant bug  
360  
Tropisternus salsamentus a hydrophi-  
lid beetle 9 10  
Trypodendron domesticum a scolytid  
beetle 703  
Tuliptree scale Toumeyella lirioden-  
dri  
Two-lined spittlebug Prosapia bicincta  
Twospotted spider mite Tetranychus  
urticae  
Two-striped grasshopper Melanoplus  
bivittatus  
Typhlocyba pomaria white apple leaf-  
hopper 340 450 592 636  
Typophorus nigrinus viridicyaneus  
sweetpotato leaf beetle 35  
Tyria jacobaeae cinnabar moth 182  
318 594

1/ Carried as a plant bug in Vol. 4.

## SLUGS & SNAILS

Theba pisana white garden snail 12

## WEEDS

Tansy ragwort Senecio jacobaeae

Texas vervain Verbena halei

Tribulus terrestris puncturevine 182

## U

## DISEASES

Uredo behnichiana a rust 264

Uredo scabies 292

Uromyces aloes aloe rust 18

Uromyces striatus alfalfa rust 1/ 160  
563 653 671 689 726 744 780 798

Uromyces viciae-fabae 456

Ustilago avenae oat black loose smut  
2/ 377 461 484 577 583 607 628

Ustilago hordei barley covered smut  
583

Ustilago kolleri oat covered smut 628

Ustilago maydis common smut 120 419  
437 459 479 505-506 529-530 557 577  
603 623 647 685-686 707 723 739 757  
763 769-770 793

Ustilago nigra barley black loose  
smut 3/ 400

Ustilago nuda loose smut 4/ 139 229  
299 331 377 400 461 511 536 577 583  
607 688

Ustilago scitaminea sugarcane smut 18  
41 119 120

Ustilago striiformis stripe smut

Ustilago tritici loose smut 229 461

## INSECTS

Udea profundalis false celery leaf-  
tier 191

1/ Carried as Uromyces striatus var.  
medicaginis in part in Vol. 4.

2/ Carried as oat loose smut and  
loose smut in part in Vol. 4.

3/ Carried as Ustilago tritici in  
part in Vol. 4.

4/ Carried as barley loose smut  
in Vol. 4.



Uglynest caterpillar Archips cerasivoranus  
Uta possibly bonzica a tenebrionid beetle 66  
Umbonia crassicornis a treehopper 25  
Unaspis citri citrus snow scale 248  
Urocerus gigas gigas a siricid wasp 264 394 415 501 765  
Uroplata girardi lantana hispid 313 498

## V

### DISEASES

Venturia inaequalis apple scab 237 244 286 309 339 359 386 407 448  
Venturia (Pollaccia) populina black poplar shoot blight 842 848  
Verticicladiella wagenarii black stain root disease 268  
Verticillium albo-atrum verticillium wilt 186  
Verticillium wilt Verticillium albo-atrum

### INSECTS

Variable oakleaf caterpillar Heterocampa manteo  
 Variegated cutworm Peridroma saucia  
 Vegetable leafminer Liriomyza sativae  
Velataspis dentata a diaspidid scale 801 805  
 Velvetbean caterpillar Anticarsia gemmatilis  
Vespa crabro germana European hornet 827 849  
Vespula pensylvanica western yellow-jacket 762-763 823 825 847  
 Vexans mosquito Aedes vexans  
Vinsonia stellifera a coccid scale 415 754 765 829 851  
 Virginia pine sawfly Neodiprion pratti pratti  
Vitacea polistiformis grape root borer 593

### SLUGS & SNAILS

Vaginulus occidentalis a veronicellid slug 703  
Vaginulus plebeius 18 115 498 499  
Veronicella kraussi 159

## WEEDS

Velvetleaf Abutilon theophrasti  
Verbena halei Texas vervain 1/ 345

## W

### DISEASES

Wheat downy mildew Sclerophthora macrospora  
 Wheat leaf rust Puccinia recondita f.sp. tritici  
 Wheat powdery mildew Erysiphe graminis f.sp. tritici  
 Wheat root-knot nematode Meloidogyne naasi  
 Wheat spindle streak mosaic virus 139 141 485  
 Wheat stem rust Puccinia graminis f.sp. tritici  
 Wheat streak mosaic virus 139 141 147 152 178 230 300 332 377 401-402 536 584 743 777 796  
 Wheat striate mosaic virus, see American wheat striate mosaic virus  
 Wheat stripe rust Puccinia striiformis  
 White pine blister rust Cronartium ribicola  
 Wildfire Pseudomonas tabaci

### INSECTS

Walkingstick Diapheromera femorata  
 Walnut caterpillar Datana integerrima  
 Walnut husk fly Rhagoletis completa  
 Walnut scale Quadraspidiotus juglansregiae  
Wasmannia auropunctata little fire ant 703  
 Watercress sharpshooter Draeculacephala mollipes  
 Western bean cutworm Loxagrotis albicosta  
 Western cherry fruit fly Rhagoletis indifferens  
 Western corn rootworm Diabrotica virgifera  
 Western flower thrips Frankliniella occidentalis  
 Western grapeleaf skeletonizer Harrisina brillians

1/ Carried as a vervain in Vol. 4.

Western pine beetle Dendroctonus brevicornis  
 Western raspberry fruitworm Byturus bakeri  
 Western spruce budworm Choristoneura occidentalis  
 Western tent caterpillar Malacosoma californicum  
 Western yellowjacket Vespa pensylvanica  
 West Indian flatid Melormensis antillarum  
 West Indian sugarcane root borer Diaprepes abbreviatus  
 West Indian sweetpotato weevil Euscepes postfasciatus  
 Wheat curl mite Eriophyes tulipae  
 Wheat head armyworm Faronta diffusa  
 Wheat stem maggot Meromyza americana  
 Wheat stem sawfly Cephus cinctus  
 Wheel bug Arilus cristatus  
 White apple leafhopper Typhlocyba pomaria  
 White peach scale Pseudaulacaspis pentagona  
 White pine sawfly Neodiprion pinetum  
 Winter grain mite Penthaeus major  
 Winter moth Operophtera brumata  
 Winter tick Dermacentor albipictus  
 Woolly apple aphid Eriosoma lanigerum  
 Woolly whitefly Aleurothrixus floccosus

## SLUGS & SNAILS

White garden snail Theba pisana

## WEEDS

Witchweed Striga asiatica

# X

## DISEASES

Xanthomonas alfalfae alfalfa bacterial leaf spot 160 563 653 671 726  
Xanthomonas translucens bacterial stripe 584 629  
Xanthomonas holcicola sorghum leaf streak 419 459 507 558 579 623 650 669 686 741  
Xanthomonas phaseoli bacterial bean blight 660

Xanthomonas phaseoli f.sp. sojense bacterial pustule 168 487 516 542 565 589 610 631 656 691-692 711 728 747 783-784  
Xanthomonas translucens xanthomonas bacterial stripe 377 512 584 629  
Xanthomonas translucens f.sp. undulosa black chaff 354 377 422  
Xiphinema sp. a dagger nematode 111 151 257 284 403 423 508 810

## INSECTS

Xanthippus corallipes a grasshopper 288  
Xyleborus sp. a scolytid beetle 620  
Xyleborus perforans 264  
Xyleborus validus 36  
Xylocius agassizi a cerambycid beetle 155  
Xylopsocus capucinus a bostrichid beetle 18  
Xylosandrus compactus black twig borer 25 732  
Xylosandrus crassiusculus a scolytid beetle 237 241 801 805  
Xylosandrus germanus 25

## WEEDS

Xanthium strumarium heartleaf cock-tebur 445

# Y

## DISEASES

Yellow leaf blotch Leptotrochila medicaginis

## INSECTS

Yellowstriped armyworm Spodoptera ornithogalli  
 Yellow sugarcane aphid Sipha flava

# Z

## DISEASES

Zonate leaf spot Gloeocercospora sorghi

## INSECTS

Zebra caterpillar Ceramica picta

Zetzellia mali a phytoseiid mite 237

Zeuzera sp. a cossid moth 456

Zicca taeniola a coreid bug 663 801  
805

Zimmerman pine moth Dioryctria  
zimmermani

Zygogramma exclamationis sunflower  
beetle 191-192 426 518



UNITED STATES DEPARTMENT OF AGRICULTURE  
Animal and Plant Health Inspection Service  
Hyattsville, Maryland 20782

Official Business  
Penalty for Private Use, \$300

NATIONAL AGRICULTURAL LIBRARY



1023142614

34/033NIDLANESR R1 CPR-0001  
DR ~~IVAN W KIRK~~ ASST AD  
USDA SER SR *LIBRARY*  
P O BOX 19687 S REG RES CNTR  
NEW ORLEANS LA 70179

